



EXCAVATIONS AT **SIRUTHAVUR**



SATHYABHAMA BADHREENATH

MEMOIRS OF THE
ARCHAEOLOGICAL SURVEY OF INDIA
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EXCAVATIONS AT SIRUTHAVUR

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प्रत्नकीर्तिमपावृणु

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Cover : *Front : The site with its Megalithic types.*

Back : General view of the site.



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Foreword

The study and research on "megaliths" in India was initiated during the nineteenth century. Early attempts on the study of megaliths were largely antiquarian in nature and in the process a number of megalithic sites were discovered. The surface features and contents of these monuments and the issues such as origin, chronology, authorship and other aspects have attracted the attention of numerous scholars.

The early investigations aimed at understanding this culture, primarily, through the study of their artefacts or material remains has now undergone change and the concepts of research have extended greatly towards understanding the culture in its totality with the help of other disciplines.

The district of Kanchipuram in Tamil Nadu is dotted with a number of megalithic sites with varied type of megalithic burials. In the light of new approaches towards environmental studies and the wider questions of climatic and environmental changes an attempt has been made in collaboration with the Department of Geology, Anna University, Chennai to excavate the centrally protected megalithic site at Siruthavur.

At Siruthavur a well-planned and carefully targeted excavation to answer specific problems was made and information has been gathered about a number of variables, such as nature of distribution, burial types with distinctive features, with a lot of variation in their external and internal architecture and contents. It has been noticed that to a large extent the geological features influenced the burial types prevalent in Siruthavur. The location of the site which provided the raw material to build megalithic burials, water and forest provided an ideal ground for the megalithic people to subsist.

This limited small-scale excavation of the representative megaliths to know the man-land relationship based on the environmental setting has brought out some facts on how the geomorphology of the region has influenced the settlement pattern of the megalithic culture.

I, congratulate Smt. Sathyabhama Badhreenath and her team for bringing out this report and putting the facts of the excavation for the scholars to research upon in the future.




(Dr. Gautam Sengupta)

Director General

Archaeological Survey of India, New Delhi

New Delhi

1/11/2011



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Preface

The proposal of excavating the megalithic site at Siruthavur was initiated in collaboration with the Department of Geology, Anna University, Tamil Nadu in order to understand the man-land relationship during the prehistoric period. Megalithic burials are marked by big stones hence the name Megalithic (*Mega*-meaning big and *lithic*-meaning stone). Some other types where there are no associated stone appendages but where other related traits of this culture are present also form a part of this culture. This particular site gave all the potential parameters for the study due to its ideal location with a perfect geomorphologic background required by the megalithic folks. The site is located between a water body (lake) suited to provide water for irrigation and a small hillock which gave the required raw materials for building the megalithic tombs. Today, a part of this site comes under the forest zone. These burial practices also help us in understanding the socio-religious practices prevailing in the region during that period. In the earlier excavations carried out in this region the dating of megalithic burials was primarily based on associated material. A scientific date was required to study the comparison with other similar sites as well as to establish a chronological order.

A multidisciplinary approach for the study of megalithic culture has not been attempted so far in this region; hence a study of climatic fluctuation through the lake deposit was carried out. This gives an insight as to how the area witnessed changes in climatic conditions, and also its relation to Man.

The spatial distribution pattern study will aid in understanding the priority regions selected for the different forms of burial style.

Chennai

30/10/2010

Sathyabhama Badhreenath

Acknowledgements

The site at Siruthavur, was excavated in collaboration with Department of Geology, Anna University, Chennai to understand the geomorphology of the site. I am grateful to the Director General, Archaeological Survey of India for giving me this opportunity to excavate this site in association with Department of Geology Anna University. Assisting me in the excavation were S/Shri K.P. Mohandas, Asst. Suptdg. Archaeologist, V. Sarangadharan, Draughtsman Gr.I., Smt. Girly Suguna, Photographer, Smt. Radha Murlidharan, Stenographer and Shri P.V. Rajan, Librarian; N. Veeraraghavan, Research Scholar, G. Margabandu and J. Govindan of the Archaeological Survey of India, Chennai Circle, Chennai. Prof. Hema Achyutan and Ms. Smriti Haricharan, Research Scholar, Department of Geology, Anna University were a part of the project.

The writing of this report was primarily due to the untiring efforts of Shri K.P. Mohandas.

I would also like to thank the Publication team of the Survey, especially its Director Dr. P.K. Trivedi, Dr. Arundhati Banerji (S.A.), Shri Hoshier Singh (Production Officer), Dr. Piyush Bhatt (Assistant Archaeologist) and Dr. Vinay Kumar Gupta and Goutami Bhattacharya (Consultants) for doing the required editing work and getting the book ready for print in the Press.

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Introduction

CHAPTER

1

THE PROBLEM AND PREVIOUS WORKS

The megalithic culture was the earliest known culture responsible for the introduction of a full fledged agricultural economy based on irrigation in South India. The study of the megalithic culture had resulted in many speculations regarding their origin, spread and age. Tamil Nadu entered into the megalithic period from the Neolithic and had not witnessed the Chalcolithic period probably due to lack of copper ore in the region. Megalithic monuments are erection and construction of tombs of stone. In spite of their varied architectural features and methods of constructions, the culture has some common features like using stones, iron tools and Black-and-Red ware pottery.

Few scholars like Wheeler, Childe, Subba Rao and Banerjee opine that the practice of megalithism spread to India from West Asia and few others like Christoph Von Furer Heimendorf, Gordon and K.R. Srinivasan feel it is autochthonous. Chronologically, the earliest megalithic type of Tamil Nadu is the dolmenoid cist with porthole on the east, which is found in the northwestern region of Tamil Nadu, around 500 BCE (Narasimhaiah

1980:205). Later, other types entered into Tamil Nadu in different periods. But all the types seem to have entered before the beginning of the Christian era (Narasimhaiah 1980:205).

The Sangam literature dated to the early centuries of the Christian era is a collection of Tamil poems belonging to the Tamil Academy which refers to these monuments. For example, the urn burials are referred to as *tali* or *mudumakkaltali* or *imattali*. The term *nadukal* could mean the menhirs.

Northern Tamil Nadu is rich in megalithic vestiges and explorations in this region were taken up systematically by the Archaeological Survey of India under V.D. Krishnaswami from 1944 to 1948 and it resulted in the discovery of more than 200 megalithic sites of different varieties in the two geological zones namely the lateritic in the north covering the taluks of Ponneri, Thiruvallur and Sriperumbudur and the granitic in the south covering the taluks of Saidapet, Chinglepet, Kanchipuram and Madurantakam.

As a result of his extensive explorations, the following types of megaliths were identified in the region:

- **Transepted Cist with passage:** Chamber having either a part of it above ground level or completely under ground and capped by a huge slab and with a slab which transects the chamber into two. There is a passage formed of two slabs placed upright on either side of the port-hole and is closed in front with another slab.
- **Dolmenoid cist:** Chamber made of slabs or unhewn stones which are partly buried and partly above ground capped by a single or multiple capstones.
- **Sarcophagus:** An oblong terracotta tub provided with legs and convex terracotta lid. Some are zoomorphic also. It is buried under ground inside a cairn circle or a dolmenoid cist.
- **Menhir:** A monolithic slab or boulder erected as a memorial stone.
- **Stone circle, Cairn circle, Cairn circle with Capstone and Barrow:** Huge unhewn boulders kept in one or more circles above the ground is known as stone circle; frequently, the stone circle encloses a heap of rubble; it has been classified as a cairn. If the heaped cairn does not have any lithic circle, it is referred to as a barrow.

Sometimes a single or more flat stones are kept on the cairn in the middle of the circle; this type is known as a cairn circle with capstone. Sometimes these four types may contain a pit, an urn, a sarcophagus, or a cist.

- **Urn burial:** A huge urn with or without skeletal remains and the primary deposits of the grave furniture is buried under ground. Sometimes the mouth is closed with a slab.

His work was followed by excavations in the present districts of Kanchipuram and Tiruvallur during 1950's under N.R. Banerjee and K.V. Soundarajan of the Archaeological Survey of India at Amirthamangalam (Ponneri taluk) (Banerjee, 1954-55:20-21), Kunnathur (Saidapet taluk) (Krishnaswami, and Saran, 1957-58: 37-38) and Sanur (Madurantakam taluk) (Banerjee and Soundara Rajan 1959:4-42) in order to understand the material interned in the monuments, mode of disposal of the dead and the method of construction of the tombs.

After a long gap, the excavations (2008) at Siruthavur offered an opportunity to open the representative types of megaliths in the Chinglepet region.

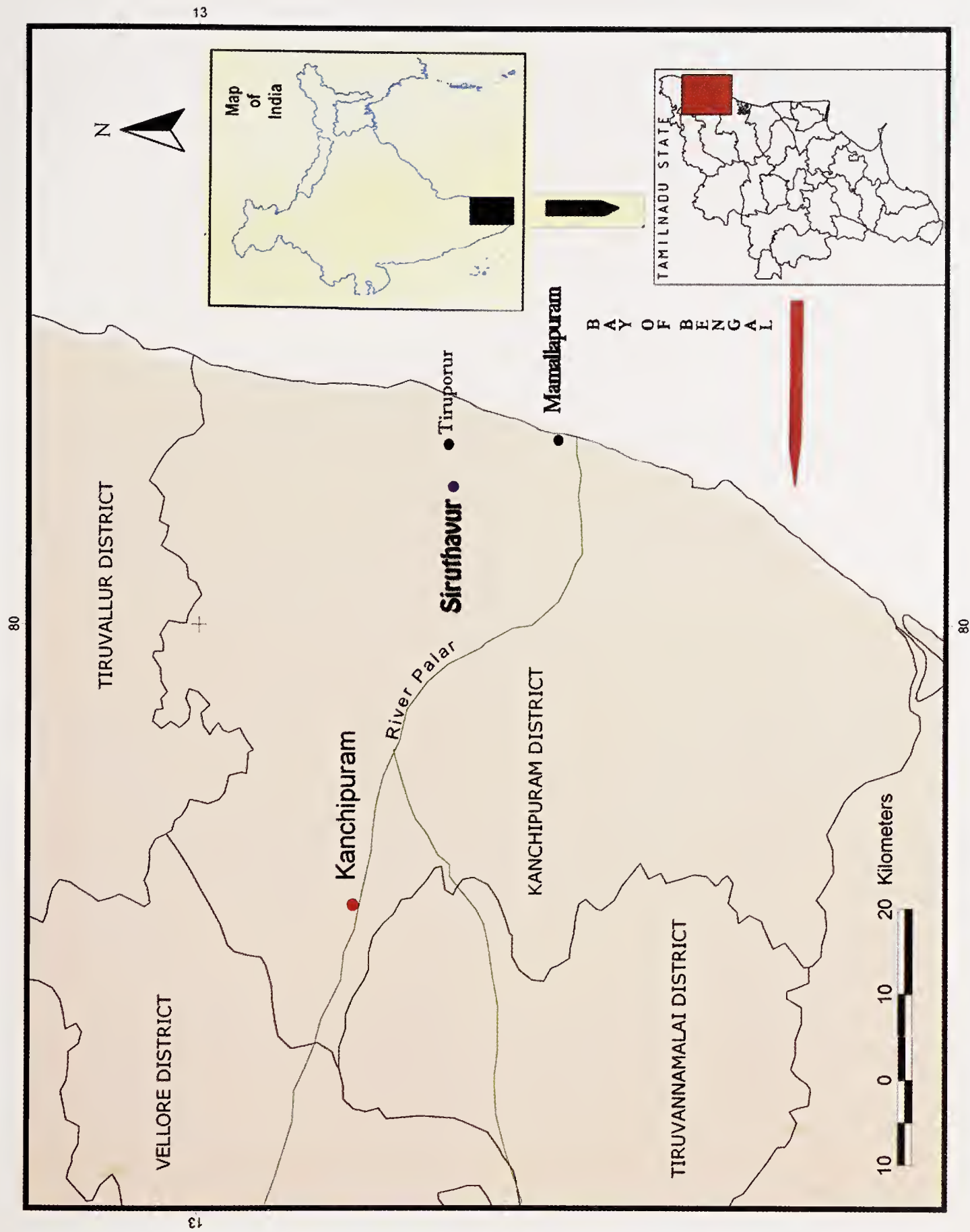


Fig. 1 Location of Siruthavur

Site and Objectives

CHAPTER 2

THE SITE

The site of Siruthavur* ($12^{\circ} 0.55' 18''$ N $79^{\circ} 40.1' 66''$ E, pls. I and II) in Chinglepet Taluk, District Kanchipuram, Tamil Nadu lies about 40 km south of Chennai. The site, protected by the Archaeological Survey of India, covers an area of 240.75 acres and is extensively covered with megaliths amidst low rocky outcrops, hidden by thick growth of shrubs of the Reserve forest. The concomitant tank is situated to the southwest and covers a wide expanse, irrigating a considerable arable area. The vast site offered a perfect environmental setting to study the spatial distribution pattern of this culture.

OBJECTIVES

The excavation of the megalithic site at Siruthavur was carried out by the Archaeological Survey of India, Chennai Circle, Chennai in collaboration with the Department of Geology, Anna University,

Chennai, in 2008. The main objectives of the excavation at Siruthavur are as follows:

- To evaluate chronologically the Iron Age of coastal Tamil Nadu.
- To understand and evaluate the spatial and temporal distribution of megalithic burials.
- To situate man-land relationship in the proto-historical period in relation to northeast monsoon and climate change.
- To understand and analyze the material remains.

A total number of eight burials were excavated, of which three burials were disturbed and the other five were intact. The burial types include urn burials, pit with sarcophagus, sarcophagus without stone assemblage, sarcophagus with stone circle, dolmenoid cist burial built of unhewn stones with stone circle and dolmenoid cist built of dressed stone slabs with stone circle.

* Abbreviated as STR.

20

MADHAVAYYATTUR

ALATTUR

TO TIRUPORUR

LAKE

S.NO.625

S.NO.626

S.NO.627

S.NO.624

S.NO.71

S.NO.72

S.NO.157

S.NO.158

HILL

MEGALITHIC SITE

PART

LAKE

REFERENCE

PROTECTED AREA

MEG - 1 to MEG - 8

Fig. 2



Pl. I General view of the site. See p. 5



Pl. II General view of the site. See p. 5

Geology and Environment

CHAPTER

3

Tamil Nadu is situated in the southeastern portion of peninsular India which extends from the Vindhya mountains in the north to Kanyakumari in the south. Tamil Nadu is bounded in the north by the states of Andhra Pradesh and Karnataka, in the east by the Bay of Bengal, in the south by the Indian Ocean, and in the west by the state of Kerala. It is an area where one finds the Western and the Eastern Ghats, vast and yet uneroded highlands, floodplains and coastal plains. The rivers that drain this state are the Cauvery, the Palar, the South Pennar, the Cheyyar, the Tamirabarani, the Vaigai, the Manimuthar, the Amaravathi, the Bhavani and the Noyyal.

District Kanchipuram has a total geographical area of 4,433 km² and a coastline of 87 km. The district is mostly flat with small hills in Chinglepet and Madurantakam taluks. It is made up of hard rocks and sedimentary formations, which is overlain by laterite and alluvium. The coastal area of the district is characterized by several strand lines, lagoons, mangroves, salt marsh, estuaries, creeks, barrier dunes, spits, beach terraces etc.

Siruthavur, which lies in Kanchipuram district is situated along the northeastern coast of Tamil Nadu and is adjacent to Chennai city. The district is bounded in the west by Vellore and Tiruvannamalai districts, in the north by Tiruvallur and Chennai districts, in the south by Villuppuram district, and in the east by the Bay of Bengal. Siruthavur is about 15 km north of Mamallapuram, which is a well known historical site where the Pallavas excavated their monolithic temples and built the structural ones.

The geology of the region had considerable influence over the typology and location of the site. The sites usually occur on the slopes of hills or hillocks or amidst rocky outcrops due to the easy availability of stone for erection of the monuments. Another feature is that the sites are located in the vicinity of perennial tanks.

The elevation at Siruthavur is the highest at the isolated hill of Archean charnockite and decreases due southwest towards the lake. The charnockite is overlain by red sand or clay which has undergone laterization at Siruthavur.

GEOLOGICAL STRATIGRAPHY OF THE SITE

Geology	Time
Red soil, lateritic pebbles and gravels	Recent - sub-recent
Laterite-saprolite horizon	Late Neogene- Early Quaternary period
Charnockite, Granite, intruded Quartz vein	Archaean – Precambrian

Paleoenvironmental study shows that the area had witnessed major aridity and had undergone alternatively two arid climates.

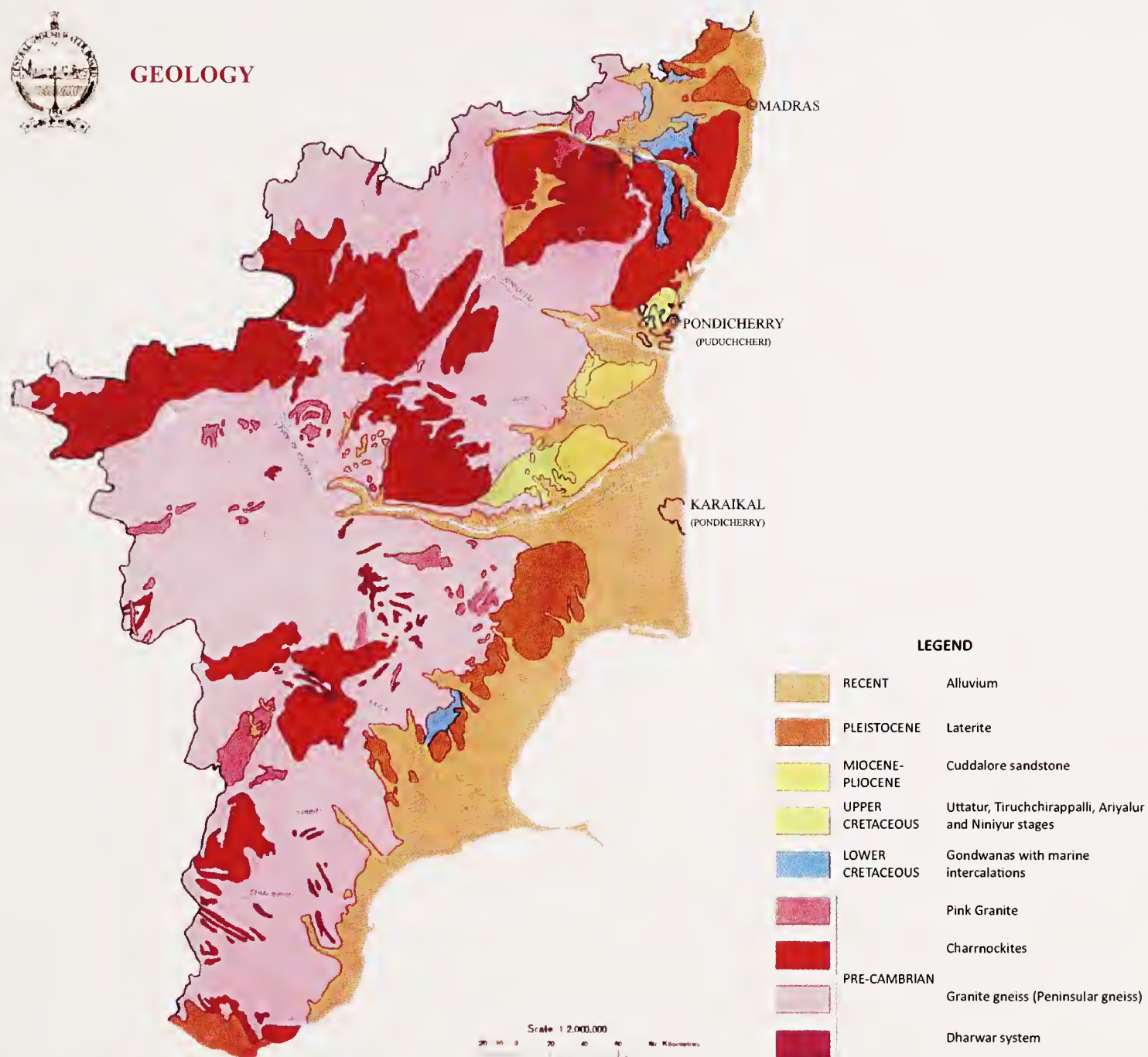


Fig. 3 Map 1: Geological Map of Tamil Nadu, Courtesy: (www.cgwb.gov.in 2008)

Excavations

CHAPTER 4

Eight burials were excavated, of which three were disturbed burials and the rest were intact. The selected ones were representative types of the site. The burials include urn burials, pit with sarcophagus, sarcophagus without stone assemblage, dolmenoid cist with dressed stone bounded by stone circle, dolmenoid cist with unhewn stone without stone circle, dolmenoid cist with unhewn stone bounded by stone circle.

I. MEG-1: STONE CIRCLE - ENTOMBING A SARCOPHAGUS

Lat. 12° 41'08.4" N;

Long. 80° 09'10.9" E.

A simple stone circle (pl. III) is located close to the lake. The stone circle consists of twenty unhewn granite stone boulders with an inner diameter of 5.90 x 5.10 m (fig. 4). The circle was divided into eastern and western quadrants for the excavation as well as four 1 x 1m trenches laid outside the circle named northeast outer, northwest outer, southwest outer and southeast outer. While clearing the outer area of the stone circle, 4 stones were found placed roughly in the four cardinal directions.

The east facing section of this burial revealed a pit marking in its section. Three layers were identified, the lower most being the natural soil, was a lateritic red coloured soil. This was overlain by a mixed brownish layer of clay mixed with laterite and on top was a thicker brown layer which was sandy and less clayey. A pit was noticed, which was mostly hard to dig due to the hardened clay packed with large blocks of granite, with smaller stones mostly angular and with some weathered gneiss as well (pl. IV). Due to the fact that the natural soil appeared in the outer areas of the eastern quadrant at 32 cm depth, the centre of the circle was dug further while surrounding areas were left undug. There was a large weathered slab (25 x 67 x 70 cm) of gneiss slanting towards the northeastern quadrant of the trench.

Another smaller weathered gneiss slab (64 x 20 x 12 cm) was found at a depth between 40 cm and 65 cm along with some pot sherds of Red ware (in a highly degenerated condition). Next to the smaller gneiss slab another pit emerged, again filled with stone packing of similar angular pieces,

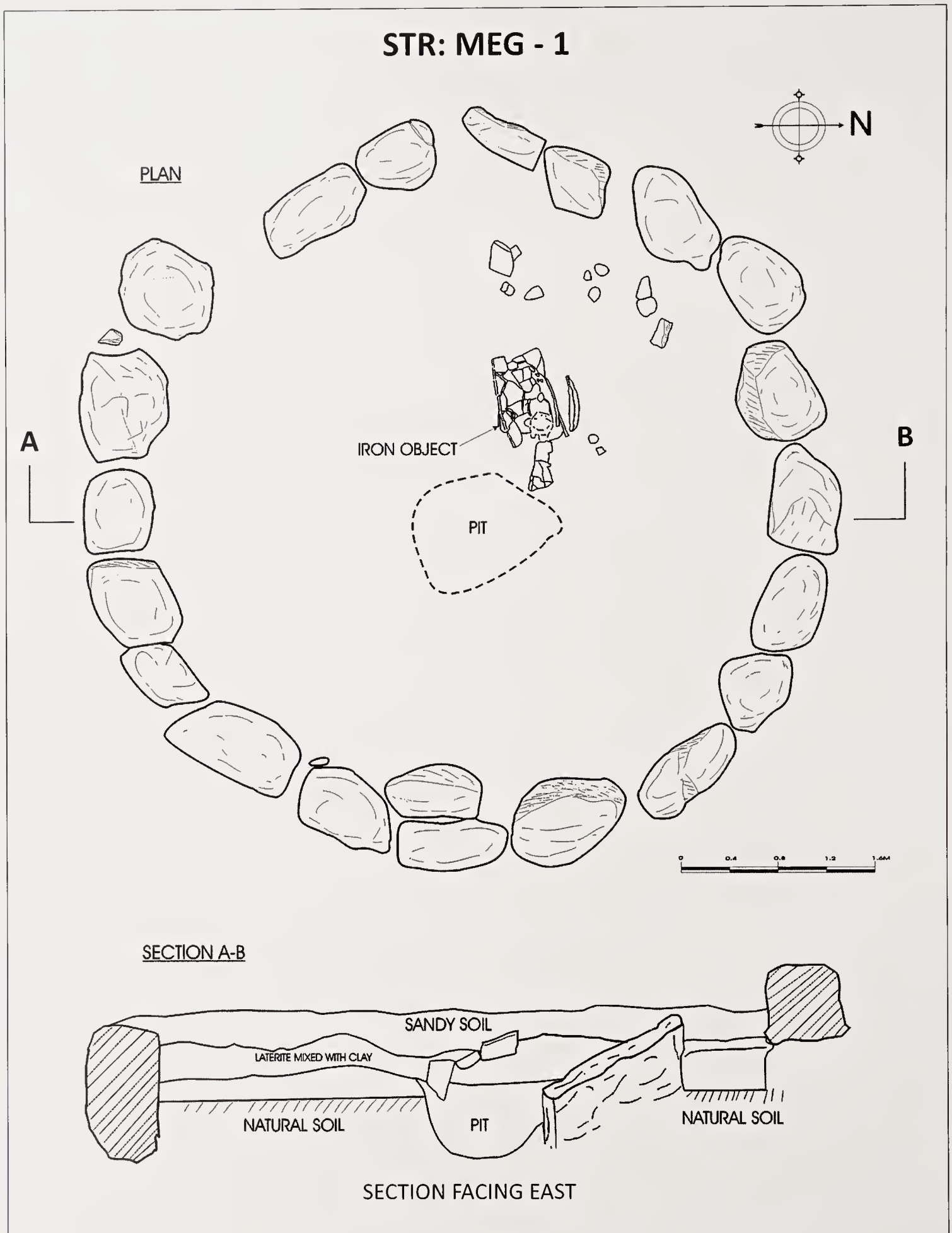


Fig. 4



Pl. III MEG-1: Stone Circle. See p. 13

the stones at the sealing level being bigger. The excavation was carried out to a depth of 1.05 m. At this level the soil was sterile and was a natural deposit of lateritic soil.

The outer trenches (1 x 1 m) revealed similar stratigraphy. In the southwestern outer trench some fragmentary pottery pieces, probably of Red ware (but in a very weathered state), as well as of some coarser pottery was found at a depth of 33 cm. In the southeast outer trench also some pottery pieces were found at a depth of 30 cm. Otherwise there were no significant findings from the cardinal trenches.

In the western quadrant at 16 cm depth a sarcophagus (approx. 80 x 40 cm) along with a roughly circular alignment of stones was found (pl. V). Along with the sarcophagus some much worn out pottery pieces of finer variety were also noticed. The sarcophagus was oriented in an east-west direction (pl. VI). A few iron implements in a very fragile state were also recovered. The sarcophagus was in a weathered condition and it is not certain whether it had any legs. Below it were found some iron pieces and pottery pieces of Red ware. The pottery was highly weathered due to the proximity of the site to the lake which probably got water logged during the rains. These types of stone circles are generally seen away from the hillock area on plain land. The internments in the burials are only secondary in nature for there are no skeletal remains.

II. MEG - 2: PIT BURIAL WITH SARCOPHAGUS

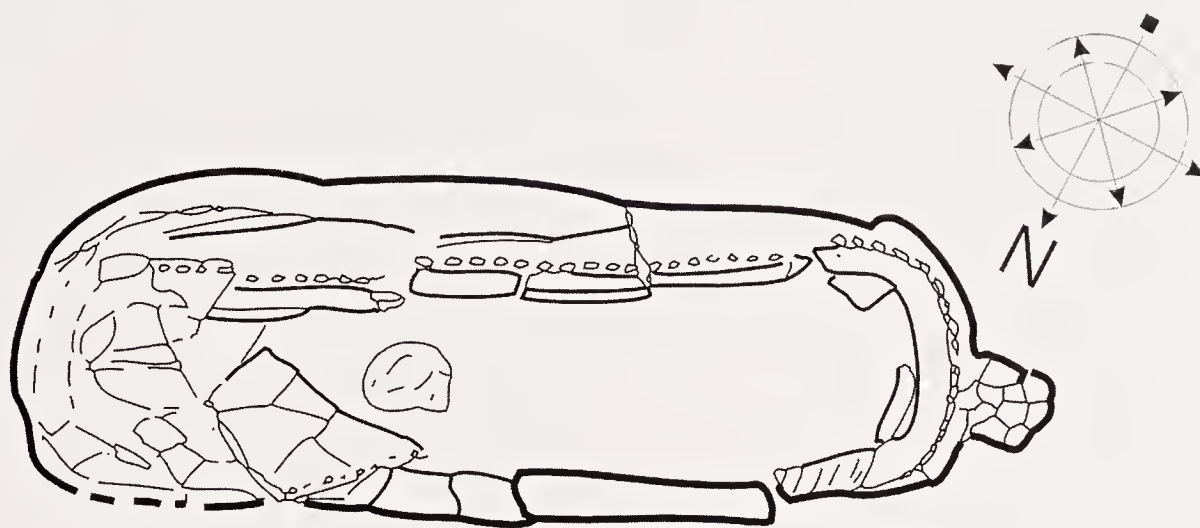
Lat.12° 41'22.8" N;

Long. 80° 09'12.8" E.

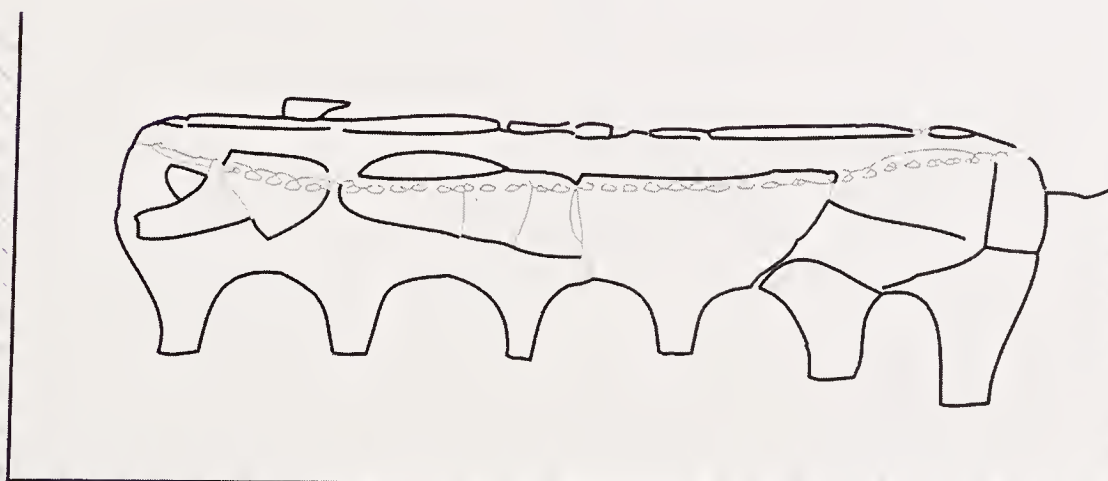
This burial was a sarcophagus whose rim outline was exposed on the surface due to erosion of the top soil (pl. VII). There were no stone appendages associated with this burial. The sarcophagus was situated on a slope and a 3 x 3m trench was laid. Due to the excessively disturbed nature of this burial both stratigraphy and the surface marking were difficult to understand. The sarcophagus was oriented in a northwest-southeast direction. The soil was compact and reddish brown in colour. Broken pottery pieces of Black-and-Red ware were recovered from the northeastern end of the sarcophagus.

The sarcophagus measured 1.65 m in length and 0.40 m in breadth and when completely exposed had 12 legs in two rows (fig.5; pl. VII). On the southeastern end of the sarcophagus a terracotta lid was noticed though in broken fragmentary condition having chain impression. These impressions continued on the sides of the sarcophagus (pl. VIII and pl. IX). On the northwest twelve etched carnelian beads and one paste bead and in the southwest twelve etched carnelian beads and two paste beads at a depth of 0.63m depth inside the sarcophagus were found (pl. X). The sarcophagus itself was completely exposed at a depth of 95 cm. At the western side of the sarcophagus were found a few Black-and-Red ware pottery pieces (may be bowl but too fragmentary) and Red ware pieces in fragmentary condition.

STR: MEG - 2



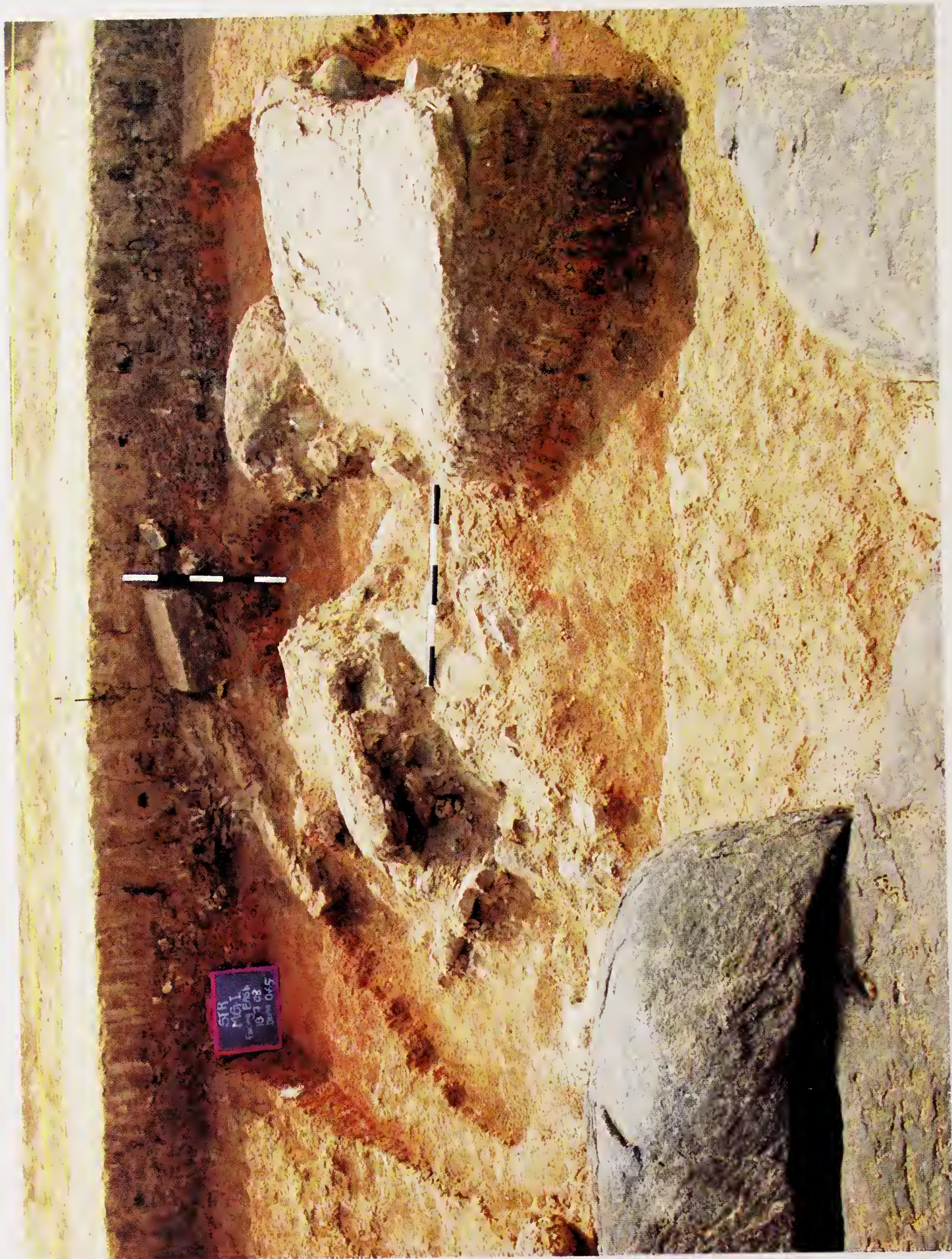
PLAN



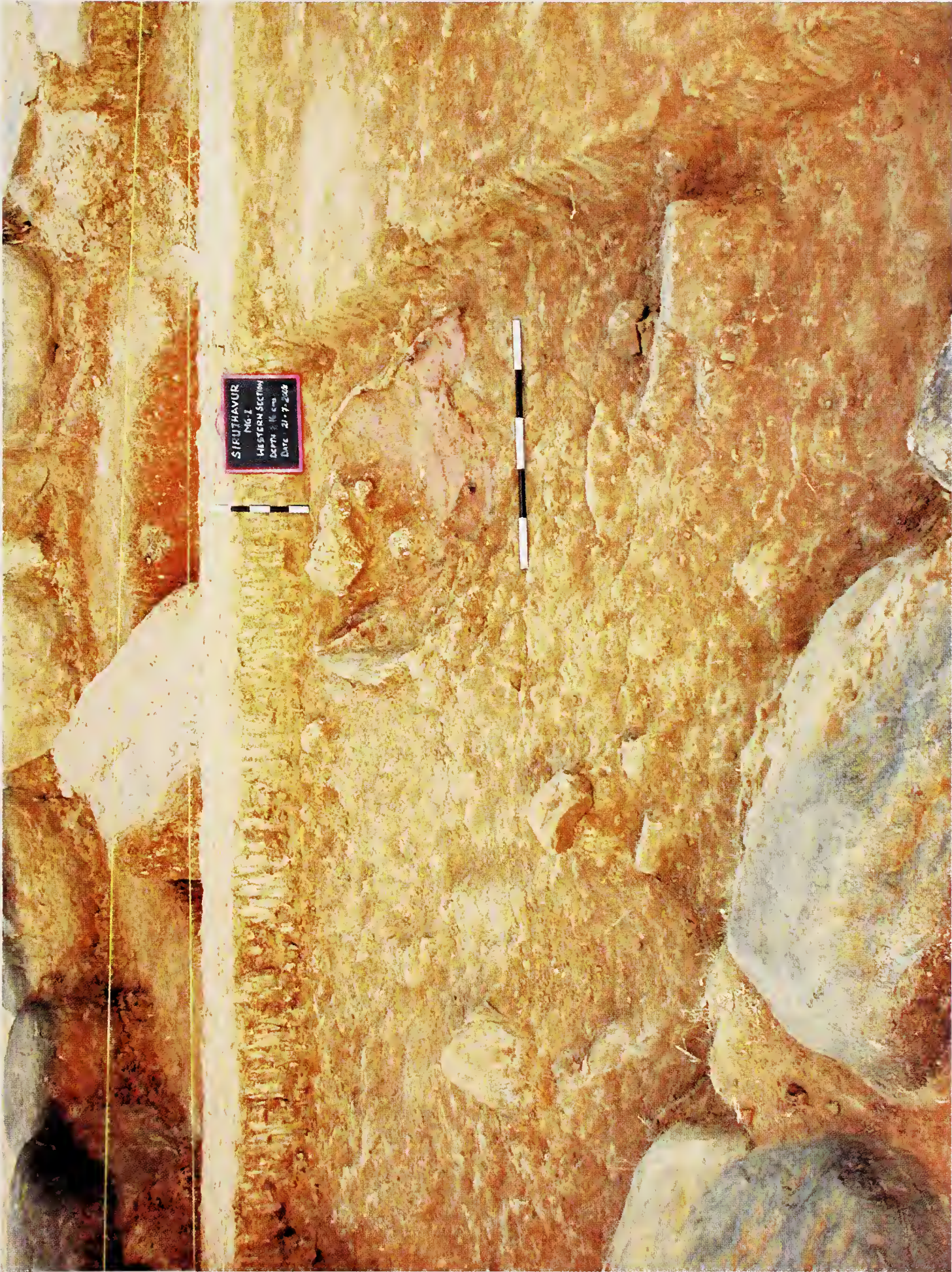
UNEXCAVATED AREA

SECTIONAL ELEVATION

Fig. 5



Pl. IV MEG-1: Angular stones and stone block in the pit. See p. 13



Pl. V MEG-1: Terracotta Sarcophagus. See p. 16



Pl. VI MEG-1: Close up view of the Terracotta Sarcophagus. See p. 16



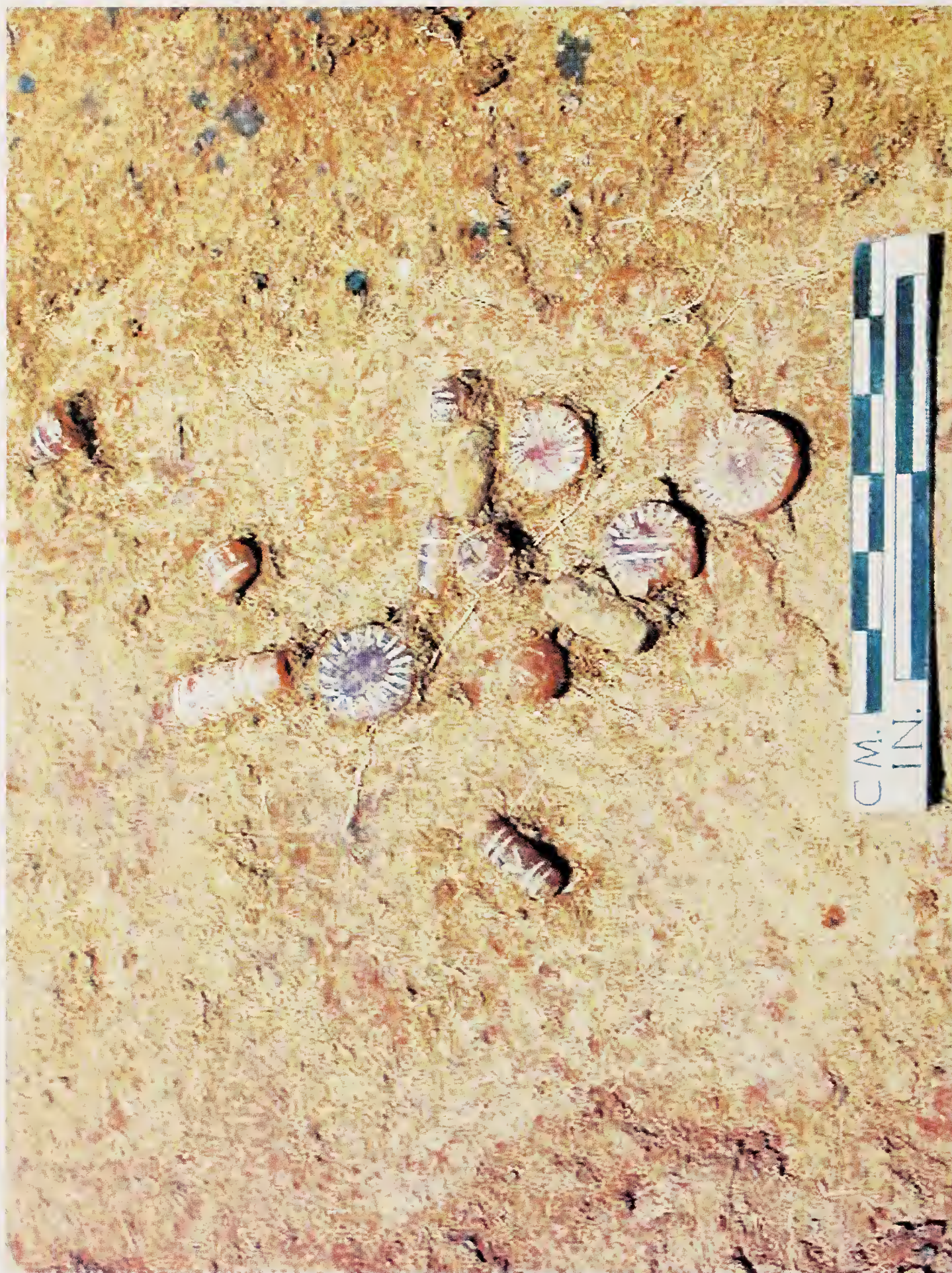
Pl. VII MEG-2: Rim of the Terracotta Sarcophagus. See p. 16



Pl. VIII MEG-2: Exposed Sarcophagus. See p. 16



Pl. IX MEG-2: Chain impression on the Sarcophagus. See p. 16



Pl. X MEG-2: Carnelian and paste beads in situ. See p. 16

III. MEG - 3: CIST WITH DRESSED STONE SLABS BOUNDED BY STONE CIRCLE

Lat.12° 41'23.1" N;

Long. 80° 09'13" E.

A partially disturbed cist was chosen for excavation because in the exposed section some pottery pieces and iron implements were visible. The northern orthostat of the cist was half broken (pl. XI). On the surface at the southern and eastern side few stone boulders were seen indicating the existence of a stone circle of approximate diameter of 5.21 m (fig. 6). The cist measured about 1.78 m in width comprising of four dressed stone slabs of different sizes with a capstone. They were set up in the pit in such a fashion that one end of each slab projected laterally across the end of one of the adjacent slabs, thus forming a sort of *svastika* in plan, in an anti clock wise form and enclosed a space inside (pl. XII).

The area around the cist was dug up to a depth of 30 cm revealing a stone packing formation on the eastern side and yielded some pottery pieces on the southern side along with more stone packing. The western side had no stone packing at all.

At a depth of 63 cm inside the cist, pottery was found of both Red and Black-and-Red ware types stacked in more than one row along with iron implements (pls. XIII and XIV). The prominent one was a sword. A terracotta sarcophagus was found at a depth of 66 cm. The tub shaped

sarcophagus (2.10 x 0.60 m) was found in a battered condition without a lid (pl. XV). It was tightly placed within the cist so as to abut the southern, eastern and western stone slabs. The sarcophagus oriented in the east-west direction was exposed on the section facing south and in all six legs were visible. Small stone chips were placed underneath three of the legs of the sarcophagus and between two of the legs on the western end was found a Black-and-Red ware bowl (pl. XVI). Four carnelian beads were found inside the sarcophagus on the south-east corner (pl. XVII).

On the southern cist wall was also noticed an opening, in which a triangular stone piece was placed which was attached at the base of the southern wall. The height of the southern stone slab was 1.38 m. The pottery and the terracotta sarcophagus were highly crushed and broken and could not be retrieved in full (pl. XVIII).

IV. MEG - 4: DOLMENOID CIST BUILT OF UNHEWN STONE BOULDERS WITHOUT STONE CIRCLE

Lat.12° 41'16.4" N;

Long. 80° 09'16.6" E.

This burial was chosen for excavation because of its unique surface features. This burial was situated very close to a small natural mound and next to some natural outcrops. To understand and study the relationship of the burial with the natural mound and outcrop, if any, it was exposed.

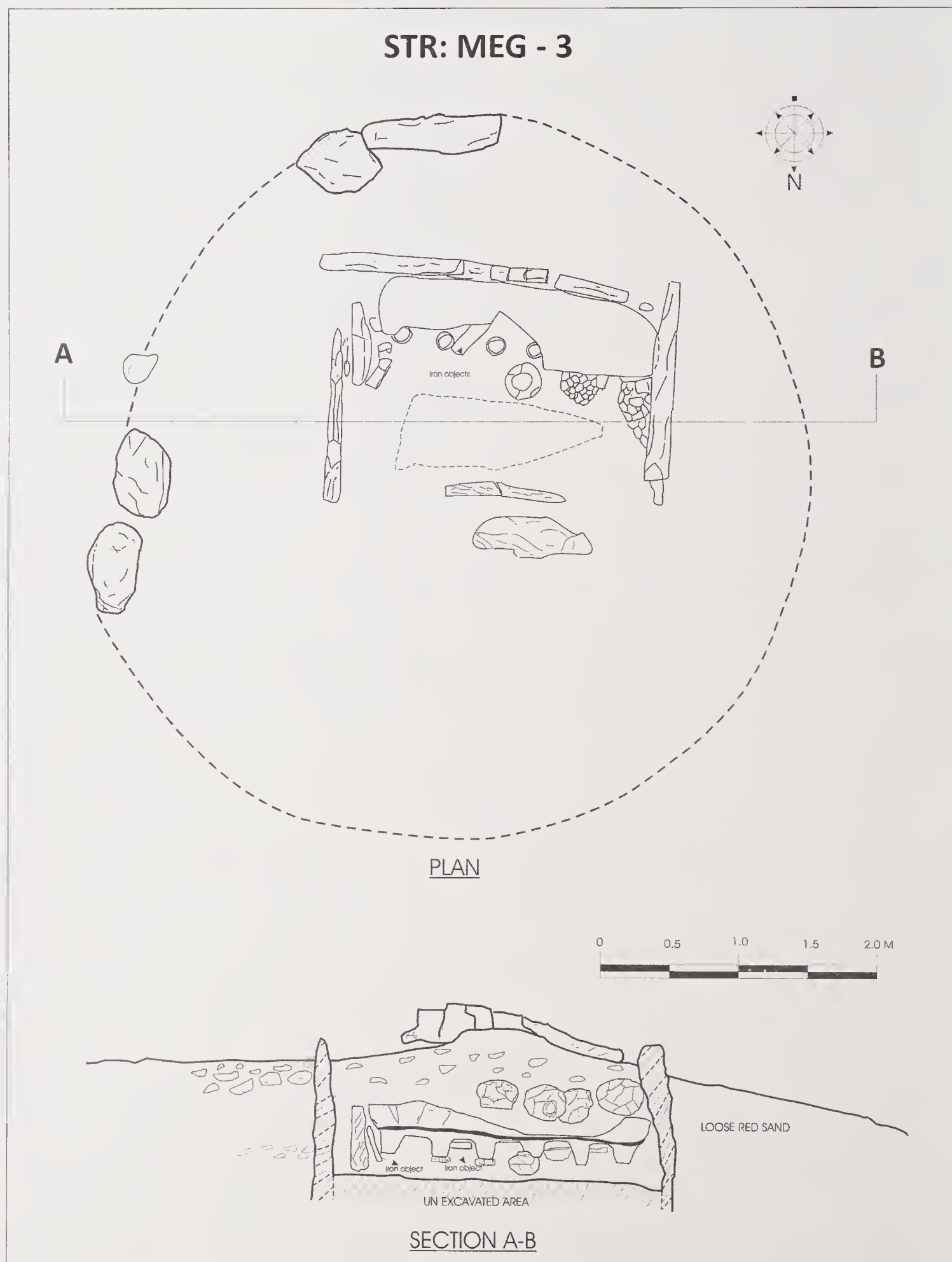
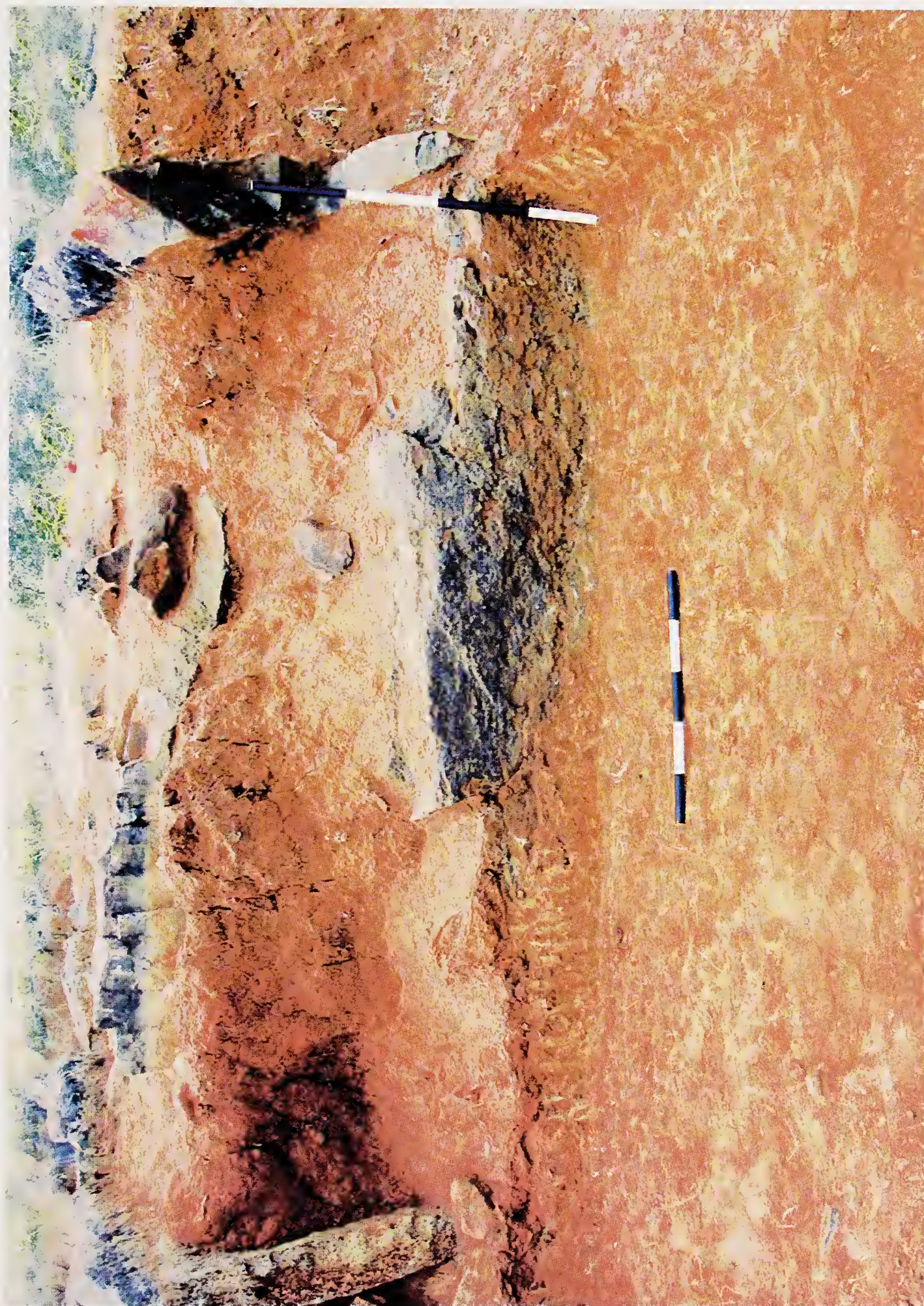


Fig. 6



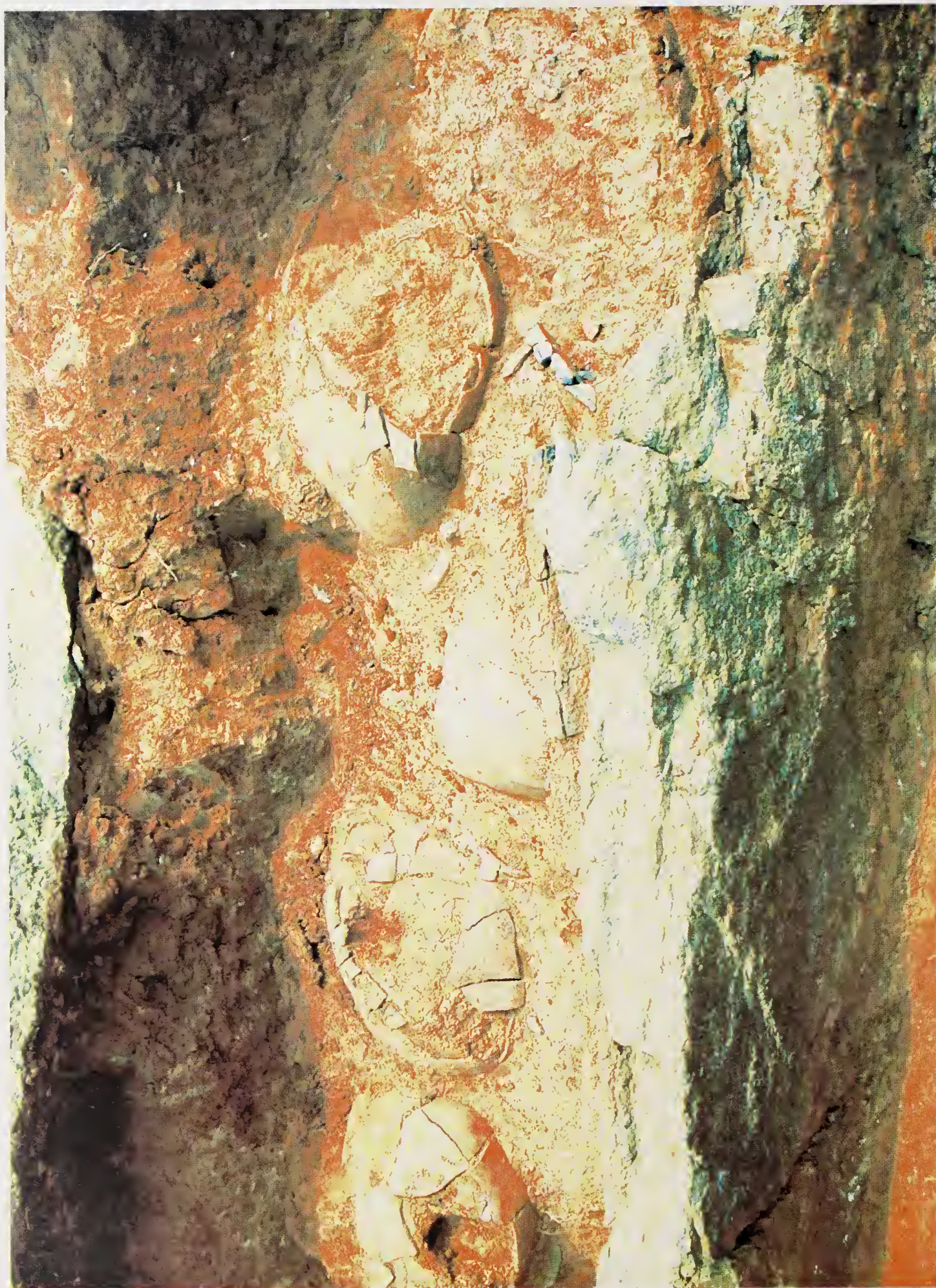
Pl. XI MEG-3: View from the north. See p. 25



Pl. XII MEG-3 : Cist burial before excavation. See p. 25



Pl. XIII MEG-3: Crushed pottery in situ. See p. 25



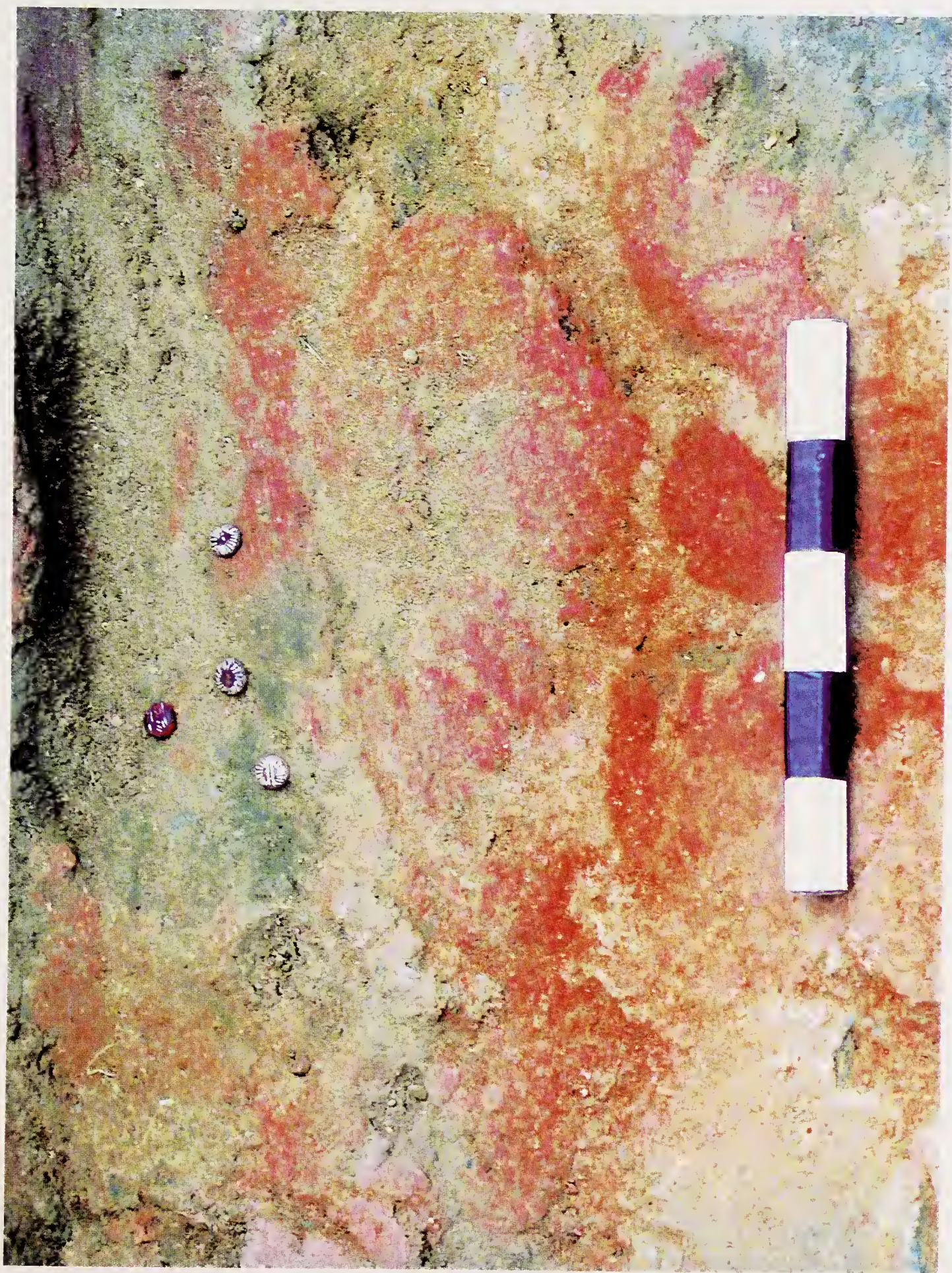
Pl. XIV MEG-3: Close up view of the pottery in situ. See p. 25



Pl. XV MEG-3I View from the north of the cist burial. See p. 25



Pl. XVI MEG-3: Close up view of the Sarcophagus with the stone chips and a Black-and-Red ware bowl. See p. 25



Pl. XVII MEG-3 : Carnelian beads inside the Sarcophagus. See p. 25



Pl. XVIII MEG-3: Iron implements and pottery beneath the Sarcophagus. See p. 25



Pl. XIX MEG-4 General view of the dolmenoid cist burial. See p. 36

The dolmen did not have any stone circle around it (pl. XIX). On the eastern side of the cist many fragmentary pottery pieces in a highly degenerated condition were found; from the northeastern side of the dolmen next to the natural outcrops some Black ware pottery pieces were recovered.

In the northern extreme of the dolmen was noticed a sarcophagus like object with no legs but packed with stones at 53 cm depth (pls. XX and XXI). To the northeast very close to the dolmen were recovered a Black ware plate completely broken, and to the west of this plate was found a sarcophagus like structure with legs also having stones on top (pl. XXII). Next to the Black ware plate was recovered an iron object. The natural outcrop was the bottom surface on which was laid the sarcophagus and some angular stone pieces were scattered over it.

V. MEG-5: DOLMENOID CIST BUILT OF UNHEWN STONE BOULDERS BOUNDED BY STONE CIRCLE

Lat. 12° 41' 17.5" N;

Long. 80° 09' 18.3" E.

A rough stone circle, measuring 9.40m north-south enclosed a dolmenoid cist composed of rough and irregular boulders and surmounted by a capstone, both the orthostats and the capstone rising above the surrounding ground (fig. 7).

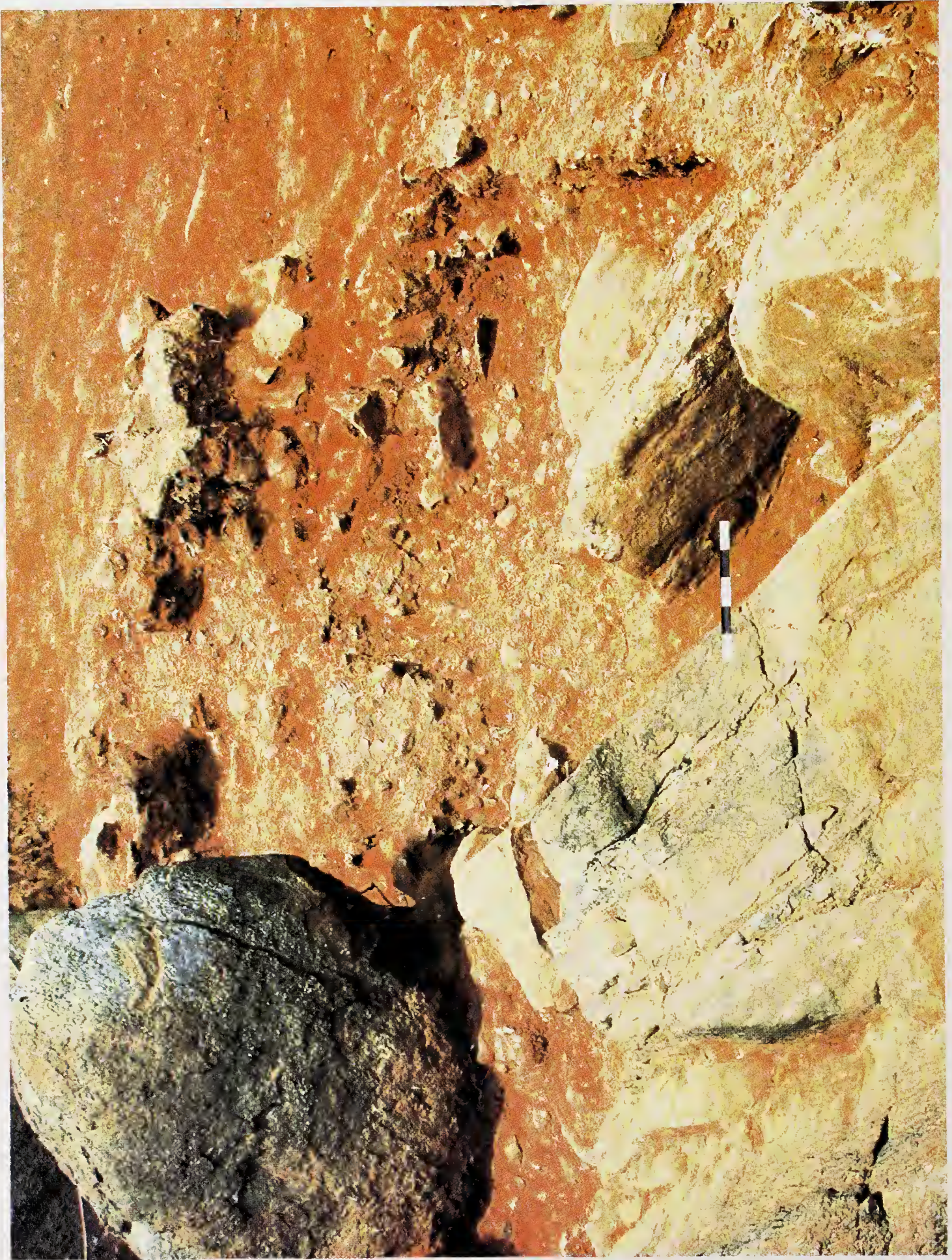
The chamber was made of seven orthostatic boulders of different sizes, arranged to form a rough circle on plan (pl.

XXIII). The orthostats varying in size were planted into the red gravelly soil which formed the original working level (pl. XXIV). The massive capstone measuring 2.64 x 1.20 m was intended to rest on the orthostats.

The excavation of the circle outside the dolmenoid cist also revealed that a stone packing for support had been created between the seven big circle stones of the dolmenoid cist. The soil in the stone circle was red, lateratized and hard with weathered stones. The soil from within the dolmenoid cist was reddish, loose and very fine. The dolmenoid cist was such that it was nearly circular in appearance and made of seven circle stones, including the two triangular pointed stones on the east (pl. XXV). At about 40 cm depth, two iron pieces in the western area of the dolmenoid cist and the top of a sarcophagus-A were revealed and in the southern area of the dolmenoid cist a circular arrangement of rounded stones was excavated. Pottery pieces were also found in the western part of the dolmenoid cist but the eastern part was completely devoid of pottery. The sieving of sand from the southwestern part of the quadrant revealed a very small and fine gold ring, at a depth of 54 cm. At the same level, the second sarcophagus-B was exposed adjacent to the sarcophagus-A in the northeastern side. Two iron implements were found, the larger one in the northeast near sarcophagus-A and smaller one in the southwest near sarcophagus-B. In the southern part of



Fig. 7



Pl. XX MEG-4: View from north of the natural outcrop. See p. 36



Pl. XXI MEG-4: Sarcophagus with stone packing. See p. 36



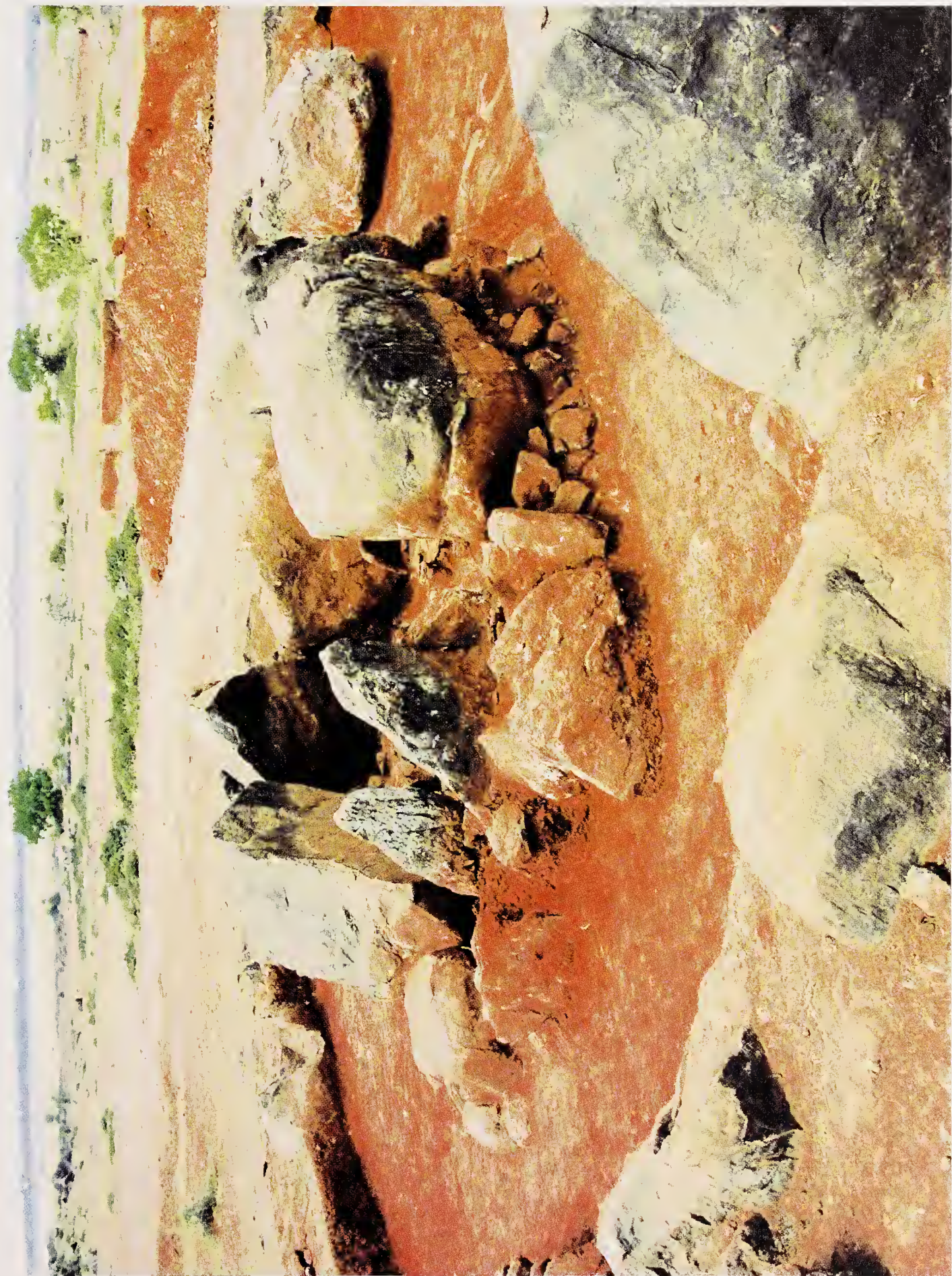
Pl. XXII MEG-4: View from the west with the stone boulders. See p. 36



Pl. XXIII MEG-5: General view of the dolmenoid cist burial. See p. 36



Pl. XXIV, MEG-5: View of the dolmen with capstone bounded by the stone circle. See p. 36



Pl. XXV MEG-5: General view of the dolmenoid cist burial. See p. 36

the dolmen a few small translucent white quartzite pieces were recovered. Another sarcophagus-C much smaller in size was recovered in the northeastern end adjacent to sarcophagus-B. In total, three sarcophagi were recovered (pl. XXVI).

Sarcophagus-A

This sarcophagus, with east-west orientation, was the largest in the megalith (pl. XXVII). It had a bulging body, measuring 1.47 x 0.65 m. It had a rope like decoration running all round the body, about 7 cm below the rim (pl. XXVIII). The sarcophagus was borne on 15 square legs in three rows of five each. The sarcophagus was covered by a lid intended to fit into the groove on its edge. It had a convex lid which was crushed. The lid had five holes, of which one was in the centre and two each along the smaller sides.

Sarcophagus-B

This was an elongated ovoid coffin measuring 1.66 x 0.33 m, oriented east-west, and with a well grooved rim originally closed by a convex lid, its fragments lying partly inside and partly outside the sarcophagus. A chain like decoration ran all round the body about 8 cm below the rim. The sarcophagus was borne on 14 legs in two rows of seven each and conical in shape.

Sarcophagus-C

This was an oblong coffin, oriented east-west and was the smallest in the megalith, measuring 0.76 x 0.33 m. with grooved rim

and six legs in two rows of three each short and square in shape. It had a flat lid crushed *in situ* (pl. XXIX).

All these sarcophagi were kept on the natural outcrop exposed at the depth of 0.74 m. (pl. XXX).

VI. MEG - 6 : DOLMENOID CIST BUILT OF UNHEWN STONE BOULDERS WITHOUT STONE CIRCLE

Lat. 12° 41' 18.5" N;

Long. 80° 09' 19.3" E.

This was a dolmenoid cist burial built of rough stone boulders surmounted by a rough capstone having no stone circle around it. The first level of the burial had very compact brown soil and had no pottery pieces. At 35 cm depth some pottery pieces and some sarcophagus pieces were noticed, but the soil was extremely hard and the preservation of the pottery was very poor. The sarcophagus was not only in fragmentary condition but largely identifiable only by the black pieces of its core which was found mixed with the soil. A possible sarcophagus oriented east-west which was not definite was excavated on the south-east side of the chamber and some fragmentary pieces of pottery were found on the northeast side. Between the two a circular impression which was probably remnants of a pot was noticed. The pottery pieces were highly weathered and due to their poor state of preservation the ware and type were not identifiable.



Pl. XXVI MEG-5: View of the three sarcophagus -A, B, and C inside the dolmenoid cist. See p. 44



Pl. XXVII MEG-5: Close up view of the Sarcophagus. See p. 44



Pl. XXVIII MEG-5: Sarcophagus with rope design and three legged pot in the side. See p. 44



Pl. XXIX MEG-5: Crushed bottom with few legs. See p. 44



Pl. XXX MEG-5: Natural outcrop on which the sarcophagi were placed. See p. 44

**VII. MEG - 7 : URN BURIAL WITH
CAPSTONE**

**Lat.12° 41'09.4" N ;
Long. 80° 09' 15.8" E.**

A part of the urn along with the capstone was exposed due to sand quarrying. There were no stone appendages visible on the surface. The urn is handmade, of coarse texture, granular fabric and medium thick. The colour of the core is smoky grey. It has an out-turned sharpened rim without additional decorations below the rim. The diameter of the rim is 44 cm. It has a completely worn out exterior. The urn was placed in a pit of adequate dimensions, cut into the lateritic gravel (pl. XXXI). Fragments of bone and ash were placed at the very bottom of the urn. Over this deposit was placed a bowl in Black-and-Red ware (fig. 8). The urn was filled with earth and covered with a dome shaped lid covering it up to the neck. The lid had a rolled rim and is of the same workmanship as that of the urn. Both are pale red in colour. After the placement of the urn with the lid, the whole pit was covered and sealed with a capstone.

**VIII. MEG - 8 : URN BURIAL WITHOUT
CAPSTONE**

**Lat.12° 41' 06" N;
Long. 80° 09' 15.9" E.**

A ditch which had been cut across the site had already exposed many urn burials. One which was relatively intact was chosen for excavation to understand this type of burial practice. The urn was found tilting towards the southwest (pl. XXXII). The diameter of the rim is 37 cm. The colour of the core is smoky grey with a medium size thick section and gritty fabric. It has a completely worn-out exterior. It has medium size thick section. The large globular urn was laid into a pit cut into the gravel (fig. 9). The urn has a finger impressed design on the exterior neck portion. The urn was filled in with earth and finally covered with a basin shaped flared out rolled lid. The lid was mostly intact though cracked. The lid being large and commodious, its rim comes right down to the belly level of the urn, proving thereby the extreme care taken by the authors to seal the burials completely.

No grave goods or bones were recovered except for a few fragmentary broken pieces of pottery form outside the urn.

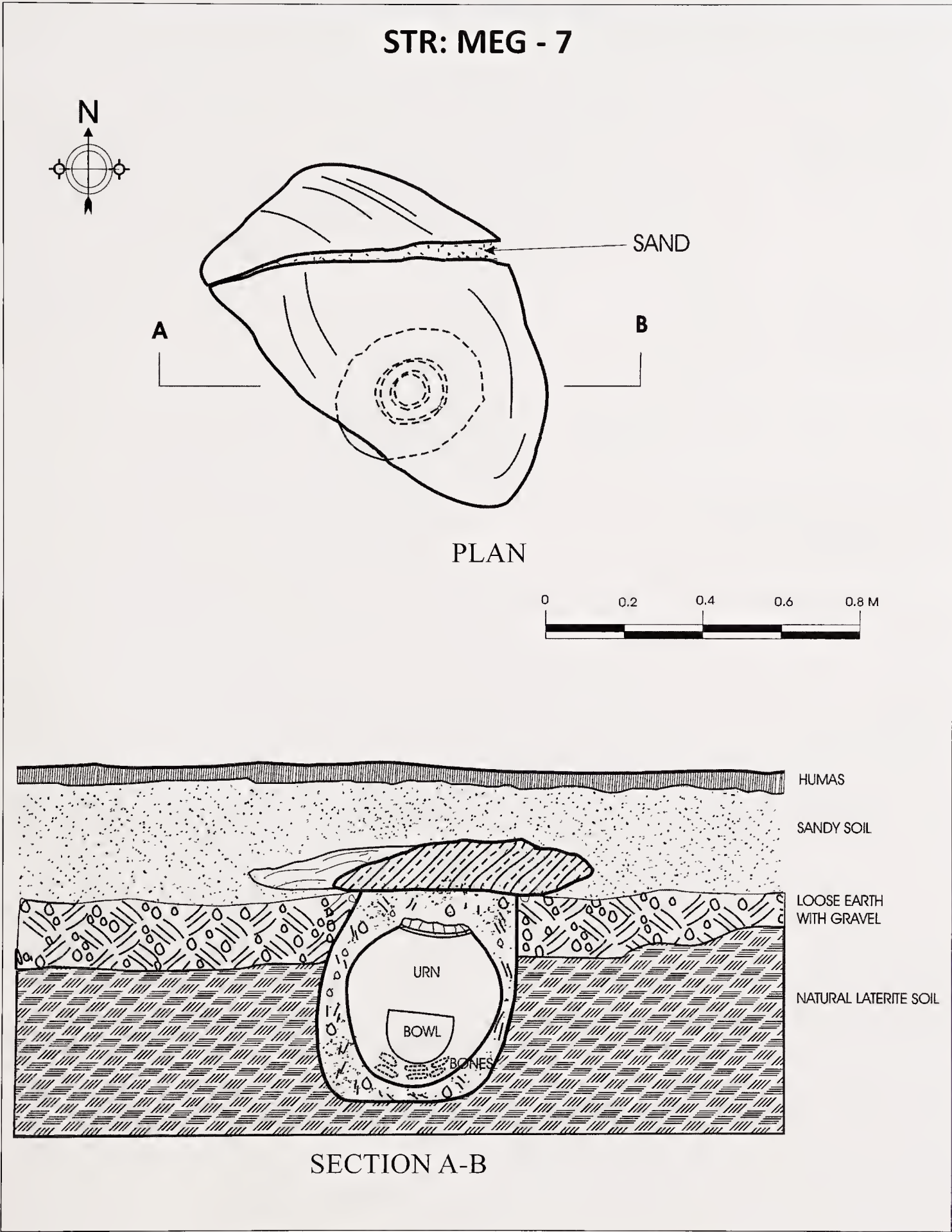


Fig. 8

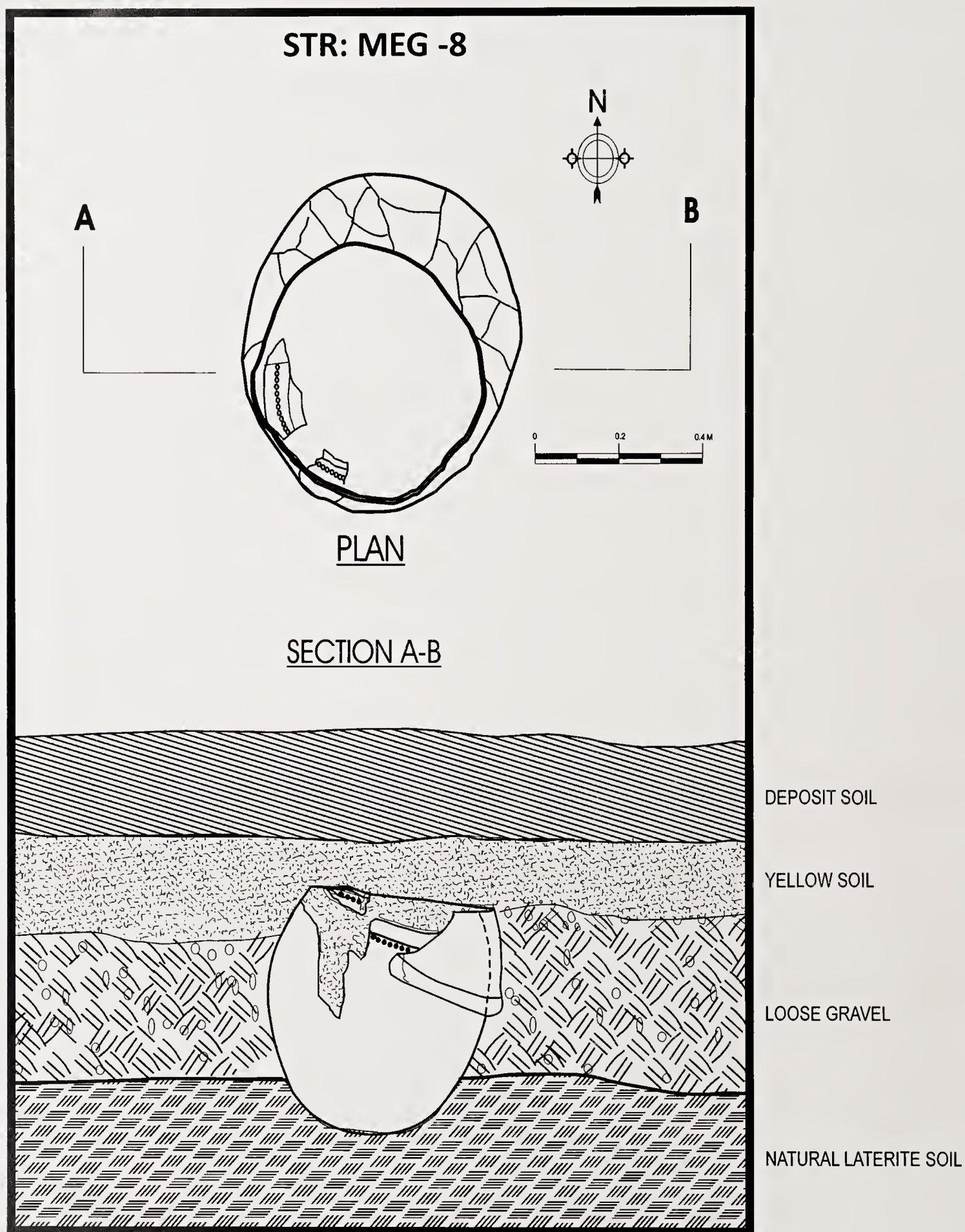
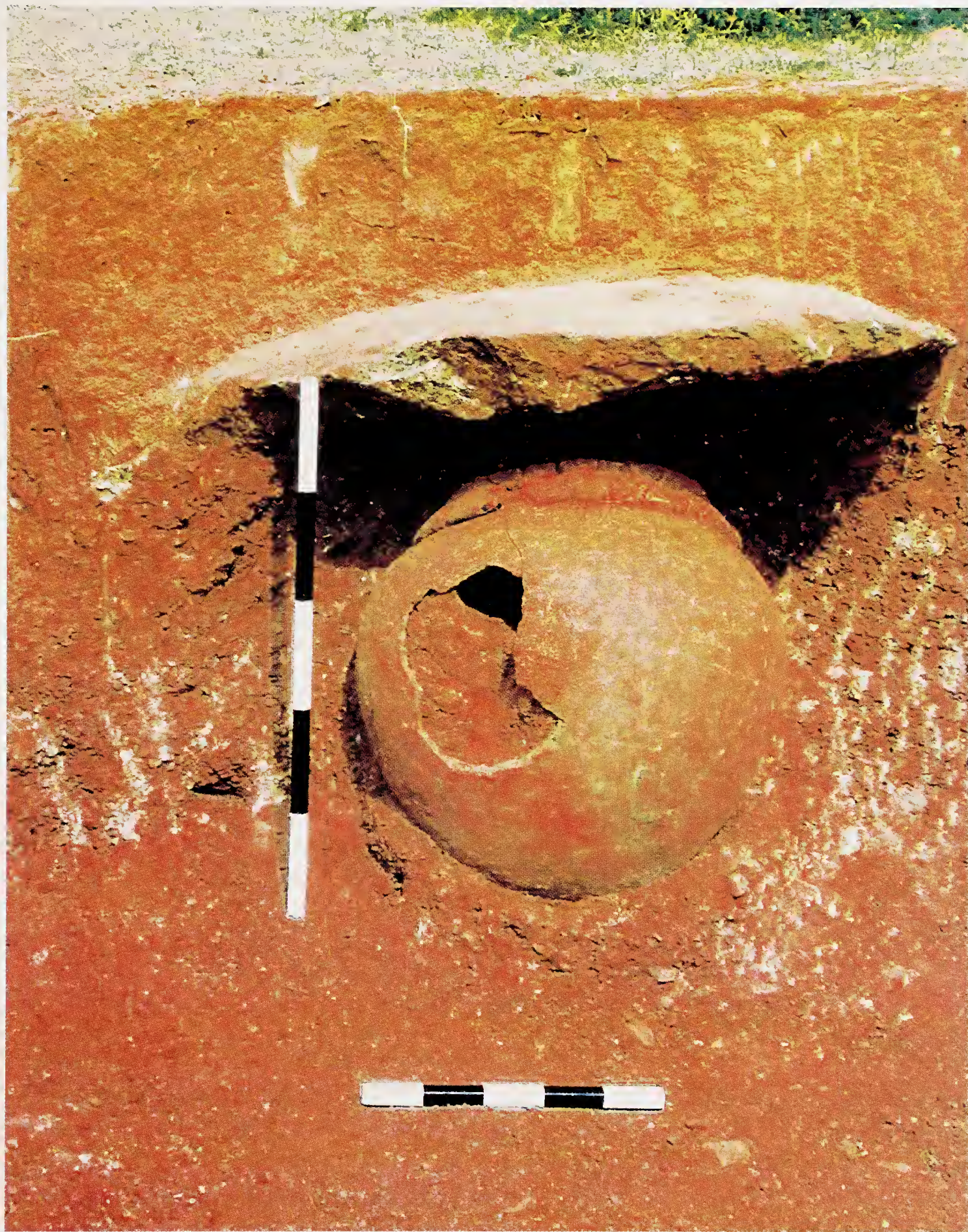
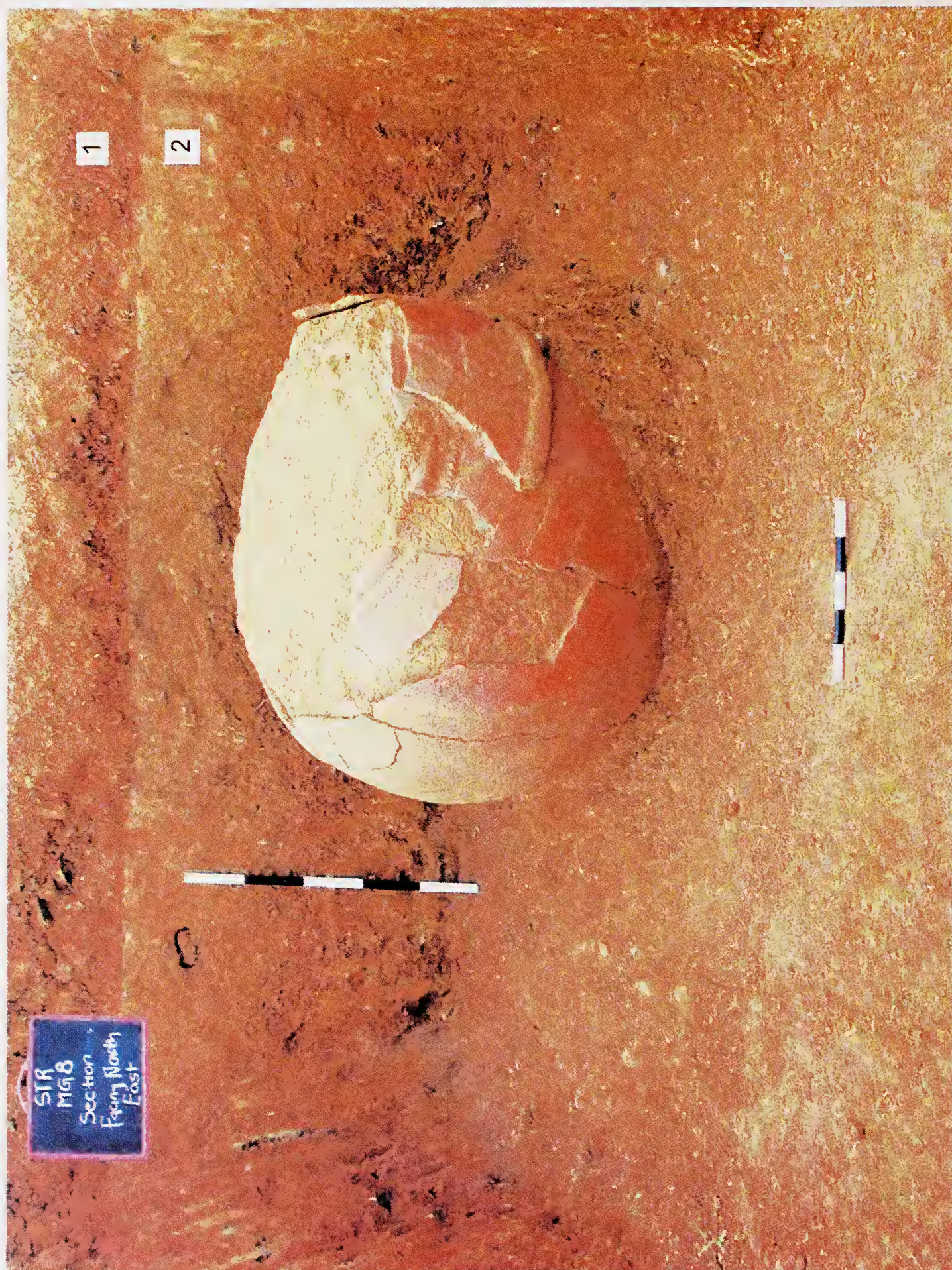


Fig. 9



Pl. XXXI MEG-7: Urn burial with capstone. See p. 50



Pl. XXXII MEG-8: Urn burial without capstone. See p. 50

Pottery

CHAPTER

5

The pottery at Siruthavur can be classified into three categories *viz*, the urns, the sarcophagus, and the associated pottery. The urns and the sarcophagus are hand-made and of Red ware variety. The pottery associated with grave goods is wheel made and the types are Black-and-Red ware, all Black wares and Red wares.

The two urns excavated in MEG-7 and MEG-8 are large in size measuring a height of 0.42 m and a diameter of 0.37 m; and a height of 1.41 m and a diameter of 0.71m respectively. The interesting features of the urns are the rope designs applied on the shoulder and body portions.

The terracotta sarcophagi were found in six of the burials ranging from small to large size. The surface treatment clearly shows that they were handmade. They are all tub-shaped oblong coffins. Some of them carry chain like design impression on its surface (pls. XXXIII and XXXIV). Pre-firing holes are found at the base of the sarcophagus. The inner portions were filled with loose earth. One of the sarcophagus was found with pottery inside and in two of the sarcophagi

beads were recovered. The interment in the sarcophagus does not include bones. The sarcophagi were found crushed owing to poor fabric and firing.

The major portion of the pottery collected from the site includes the typical megalithic Black-and-Red ware. They were produced in the method popularly known as “inverted firing technique”, under reduced oxidizing condition in the kiln. They are wheel turned and made of well levigated clay.

The pottery was invariably wheel turned, well baked and polished. The pottery had no decoration or paintings on its surface. The varied types included round bottomed pot, dish, bowls, ring-stand and three-legged pot.

Both in quality and characteristic finish the burial pottery from Siruthavur resembles those recovered from the sites of Sanur, Kunnathur, and Amirthamangalam in the same district. Precise correspondence in shapes, however are not many. The occurrence of ring-stand at Siruthavur, on the other hand, relates this industry with that at Sanur and Adichanallur.

RED WARE

The Red ware is distinctive and seems to have been fired at a low temperature as it has weathered much sooner than the others. The Red ware is coarser; not well fired. Red ware is confined mainly to large and medium sized vessels. With the discountable exception of large jars, the entire range of this pottery is wheel turned and is coarse, occasionally medium grained, the tempering material being sand and little particles of quartz. The bulk of the pottery shows much of sand particles and grit having been mixed in the paste, as a result of which, during firing in the kiln, in most cases, it has resulted in a grey to black core section.

A majority of the pottery was made on a fast wheel, as the nature of striation marks indicate. The pottery is usually plain and utilitarian in character. No decorations are seen, however, a ring-stand is seen with post-firing graffiti marks. The majority of the pots seen in MEG-4 are of this ware.

BLACK WARE

The Black ware is as coarse as Red ware; ill-fired, usually not so highly polished and is normally potted on a slow wheel. In the megalithic Black ware the pots were not finished with so much care. The slip in the Black ware stands out as a distinct layer. The common type is bowl.

BLACK - AND - RED WARE

The Black-and-Red colour attributed to this ware is the result of inverted firing technique and oxidizing conditions of the kiln.

The ware is treated black fully from inside and externally only on upper portion, leaving the bottom portion red. In total, this ware is prolific with 60% representation of the total assemblage of pottery.

The ware in general is fine and possesses a bright shining surface which is due to burnishing. It is made of well levigated clay with tempering materials like sand; and well baked. Quartz is sparingly used. The section ranges from thin to medium. The wheel striations are distinct by their appearance indicating the nature of it wheel turned. It has usually a burnished surface which shows crackles, presumably caused by salt glazing. The core is fine-to-medium grained. The ware is invariably coated with a fine slip which gives a shining black colour in the interior and externally on the sides and red at the bottom ranging from bright red to dull brownish red. In a few cases the pots are seen burnished and slipped on both the sides.

The general types occurring in this ware are the bowls, dishes, plates of which some specimens indicate their close resemblance with the megalithic pottery from Sanur, etc.

Some of them seem to have been fired at a low temperature since the body is not hard enough and easily crumbles.

GRAFFITI

The graffiti incised symbols have been found in three of the Black-and-Red ware potsherds (pl. XXXV) and in the ring-stand (pl. XXXVI). Incidentally all these were found



Pl. XXXIII Piece of the Sarcophagus with rope design. See p. 55



Pl. XXXIV Piece of a sarcophagus with finger print design. See p. 55



Pl. XXXV Black-and-Red ware postsherds with graffiti marks. See p. 56



Pl. XXXVI Ring-stand with graffiti mark. See p. 56

from the burial MEG-3. No satisfactory answer or explanation has been offered so far, for these symbols engraved on the pottery which has been reported from all over the country from the Chalcolithic-Harappan culture in north-west India down to the Megalithic culture in the south.

One thing however is certain that they were invariably scratched or incised into and any other surface treatment was made after firing of the pot, suggestive of their being purposeful and intended perhaps for a particular occasion. Two oblique lines converging at the top with horizontal lines is the only graffiti mark represented at Siruthavur.

Fig.10 – Pottery

1. Fragment of a Red ware pot with an inturned and internally undercut rim and deep widening body (MEG-3).
2. Fragment of a pot with externally grooved rim (MEG-3).
3. Miniature ring-stand, Black polished ware with beaded rim. Two faint discontinuous grooves are visible towards the broader bottom portion. The rim is thick and flaring. The fabric is fine; it is treated with a slip both externally and internally.
4. Bowl of Black-and-Red ware with an inturned featureless rim. The exterior is completely eroded with traces of black colour. The core is red in colour (MEG-3).

5. Fragment of a miniature ring stand in Black ware with a beaded upper rim and a rolled rim of fine fabric, with a smoky black core and the exterior has crackled surface (MEG-3).
6. A large bowl of Black-and-Red ware with a slightly inturned and internally grooved rim and a rounded base. Of fine fabric and well fired.
7. Fragment of a miniature ring-stand in Black ware with a beaded upper rim of fine fabric, with a smoky black core and the exterior has crackled surface (MEG-3).
8. Fragment of probably a basin or shallow dish with incurved and internally clubbed rim of medium fabric with traces of red slip in both the sides. The core is in red colour with an orange outer layer. The slip which is brittle is flaking off on both sides (MEG-3).
9. Fragment of a pot with externally grooved rim (MEG-3).

Fig: 11- Pottery

1. A complete ring-stand of Red ware of the hourglass shape with a slip, having a beaded rim and a flat rolled lower rim with a flattened bottom on the larger lower side. Below the upper rim and over the lower one are deep continuous grooves. The lower rim has a shallow depression on the inner side. Patches of red slip are traceable on the inner portion and on the neck. It bears post-firing

STR: MEG - 3

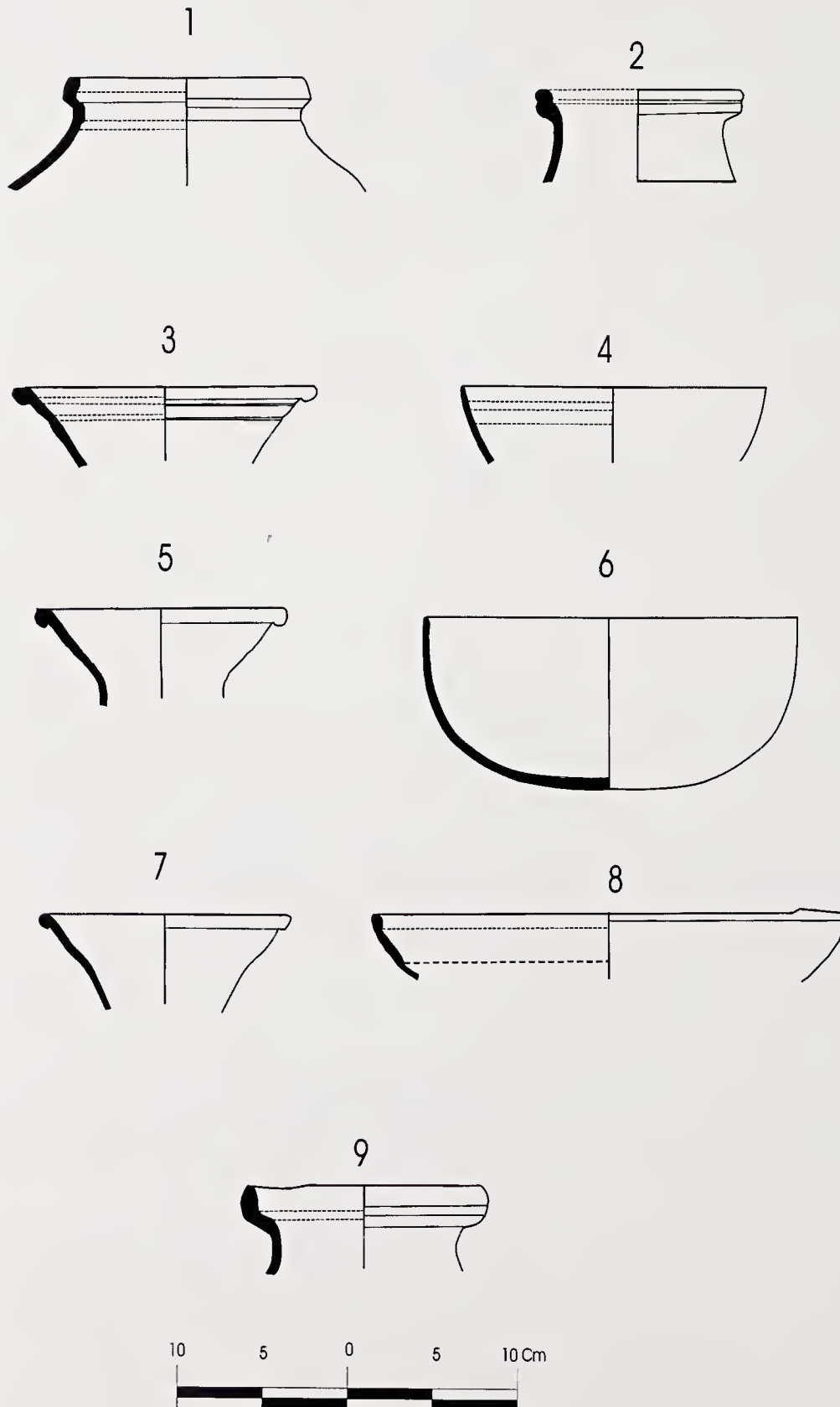
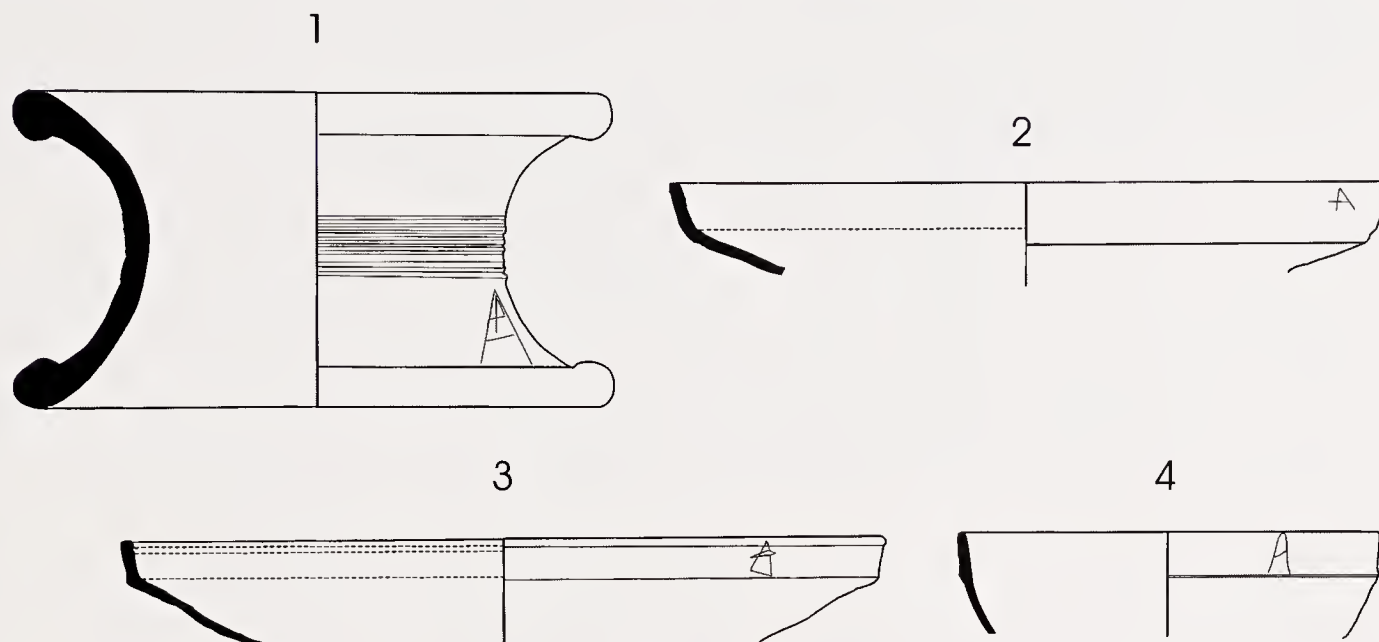
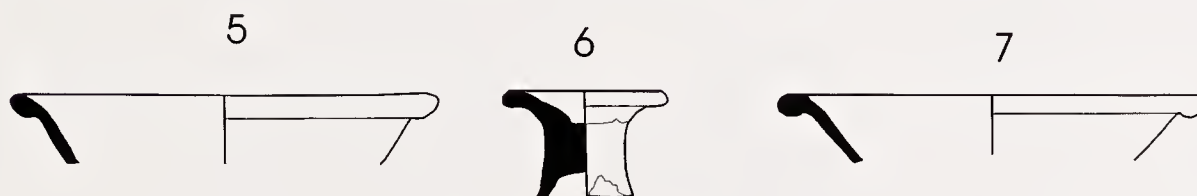


Fig. 10 Pottery

STR: MEG - 3 - GRAFFITI



STR: MEG - 4



STR: MEG - 5

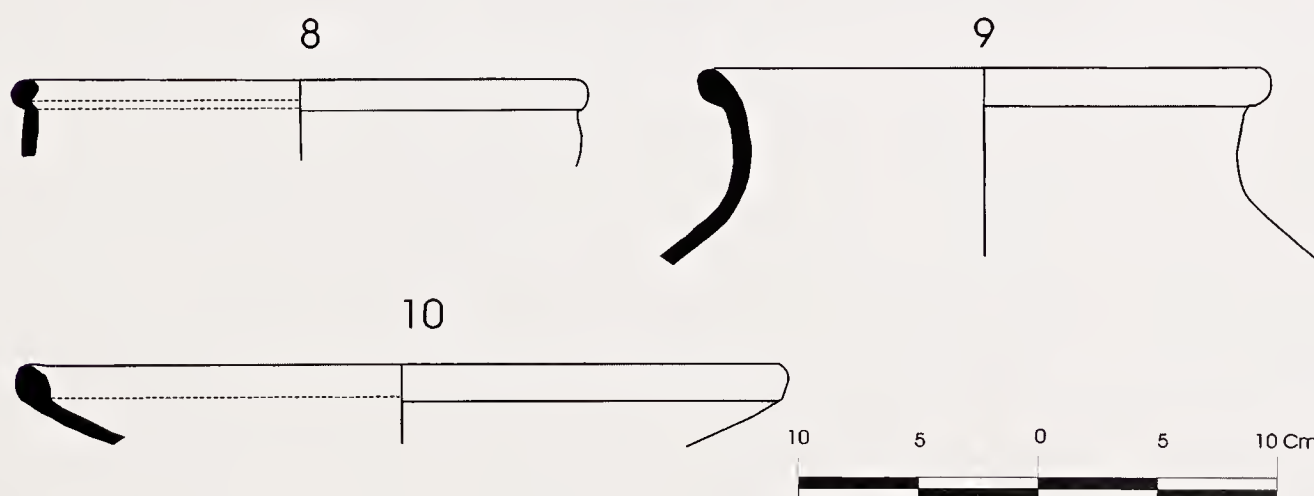


Fig. 11 Pottery

graffiti mark on the exterior portion of the lower base (MEG-3).

2. Fragment of a dish of Black-and-Red ware with slightly out-turned sides and having an everted rim. It bears graffiti on the exterior portion of the rim (MEG-3).
3. Fragment of a dish of Black-and-Red ware with slightly out-turned sides and having an everted rim. It bears graffiti on the exterior portion of the rim (MEG-3).
4. Fragment of a bowl of Black-and-Red ware having simple perpendicular rim form with external light channel ledge. It bears graffiti on the exterior portion of the rim (MEG-3).
5. Miniature ring-stand of hourglass shape in Black polished ware with externally projecting rounded rim and having fine fabric, it is treated with a slip both externally and internally (MEG-4).
6. A pedestal cup of Black ware with broken upper portion. It has a circular flattened base with round edges. It has a medium stem and the upper portion

is broken. It is of medium fabric, the black slip is scaling off (MEG-4).

7. Miniature ring-stand of hour glass shape in Black polished ware with externally projecting rounded rim and having fine fabric, it is treated with a slip both externally and internally (MEG-4).
8. Fragment of a Red ware bowl with an incurved and internally grooved rim. The core is black in colour and of medium fabric. Traces of red slip are visible on both the sides (MEG-5).
9. Apot of Red ware with a externally round collared rim, a short neck and a globular profile. Of medium fabric, which has burnt smoky dark in section, it is treated only with a thin slip (MEG-5).
10. A large bowl of Red ware with a slightly inturned and rounded rim. It is of fine fabric and well-fired (MEG-5).

Figs: 12- Broken pieces of Sarcophagus

1. Thick hand made Red ware fragment of a sarcophagus with external designs on the surface (MEG-2).
2. Thick hand made Red ware fragment of a sarcophagus with external designs on the surface (MEG-3).

STR: MEG -2

1



STR: MEG -3

2

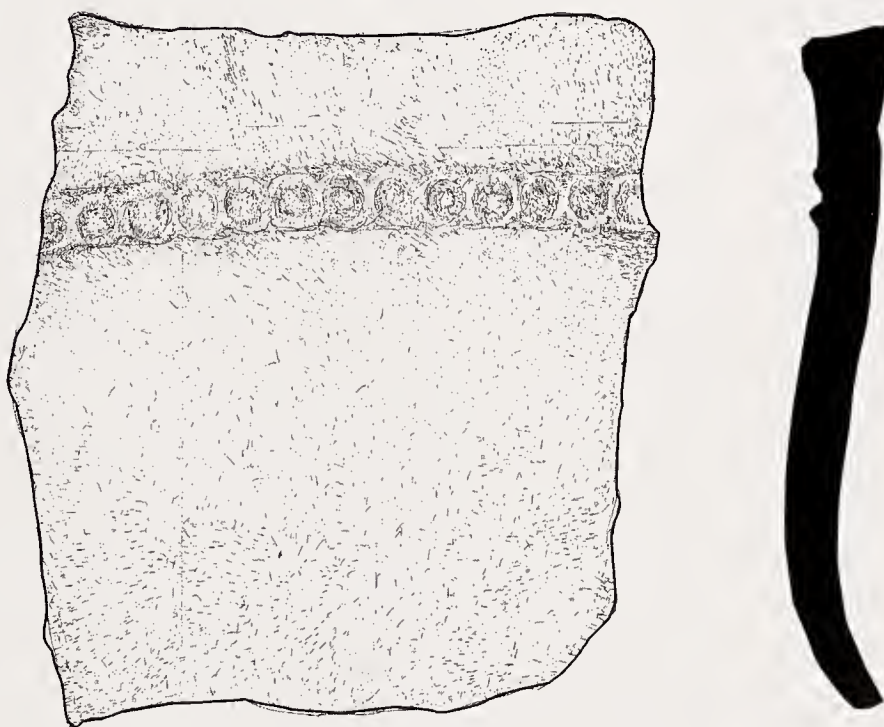


Fig. 12 Fragments of a Sarcophagus

Antiquities

CHAPTER

6

A. BEADS

Etched Carnelian and Paste Beads

The etching in the semi-precious carnelian stone is invariably in white over the natural red surface. In the whole collection of etched beads only three types are available (pls. XXXVII and XXXVIII; pls. XXXIX and XL):

- (a) Long barrel circular
- (b) Oblate and
- (c) Circular tablet

With the available data on the study of etched carnelian beads, it is difficult to date any type or design. Different varieties of designs are seen in the etched carnelian beads of Siruthavur. As such this design had a long chronological range between 5th century BCE and 3rd century CE. Etched carnelian beads have been reported from megalithic burials like Kodumanal, Sanur, Sular, Porunthal, Thandikudi etc., in Tamil Nadu.

Paste beads are long barrel shaped, brown in colour and polished (pl. XLI).

Fig: 13

1. Carnelian long barrel circular bead; etched in white with two rows of chevrons in the centre with marginal bands at the ends (MEG-2: pl. XXXVIII-6, Reg. No.4)
2. Carnelian long barrel circular bead; etched in white with oblique strokes enclosed within two marginal bands at the ends (MEG-2: pl. XXXVIII-4, Reg. No.5)
3. Carnelian long barrel circular bead slightly broken at the end; etched in white with two rows of chevrons in the centre with marginal bands at the ends (MEG-2: pl. XXXVIII-5, Reg. No.6)
4. Paste bead; long barrel circular with polished surface (MEG-2: pl. XLI-1, Reg. No.7)
5. Carnelian circular tablet bead; with short straight radial lines near periphery. (MEG-2: pl. XXXIX-4, Reg. No.8)
6. Carnelian circular tablet bead; with short straight radial lines near periphery, dot at the centre (MEG-2: pl. XL-1, Reg. No.9)
7. Carnelian circular tablet bead; with short straight radial lines near periphery, dot at the centre (MEG-2: pl. XL-10, Reg. No.10)
8. Carnelian circular tablet bead; with short straight radial lines near periphery. (MEG-2: pl. XL-5, Reg. No.11)
9. Carnelian circular tablet bead; with short straight radial lines near periphery. (MEG-2: pl. XL-6, Reg. No.12)

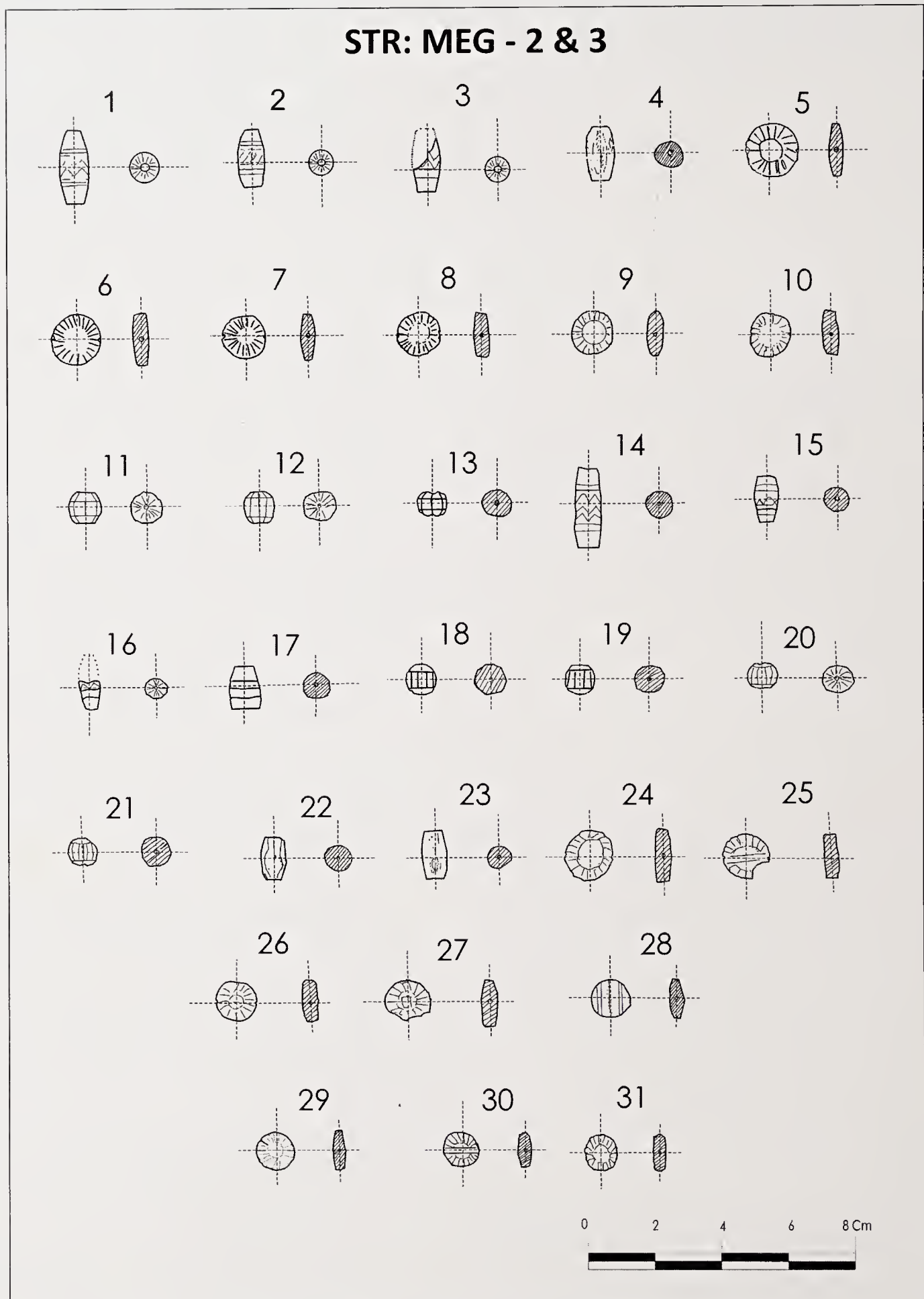


Fig. 13 Carnelian and Paste beads



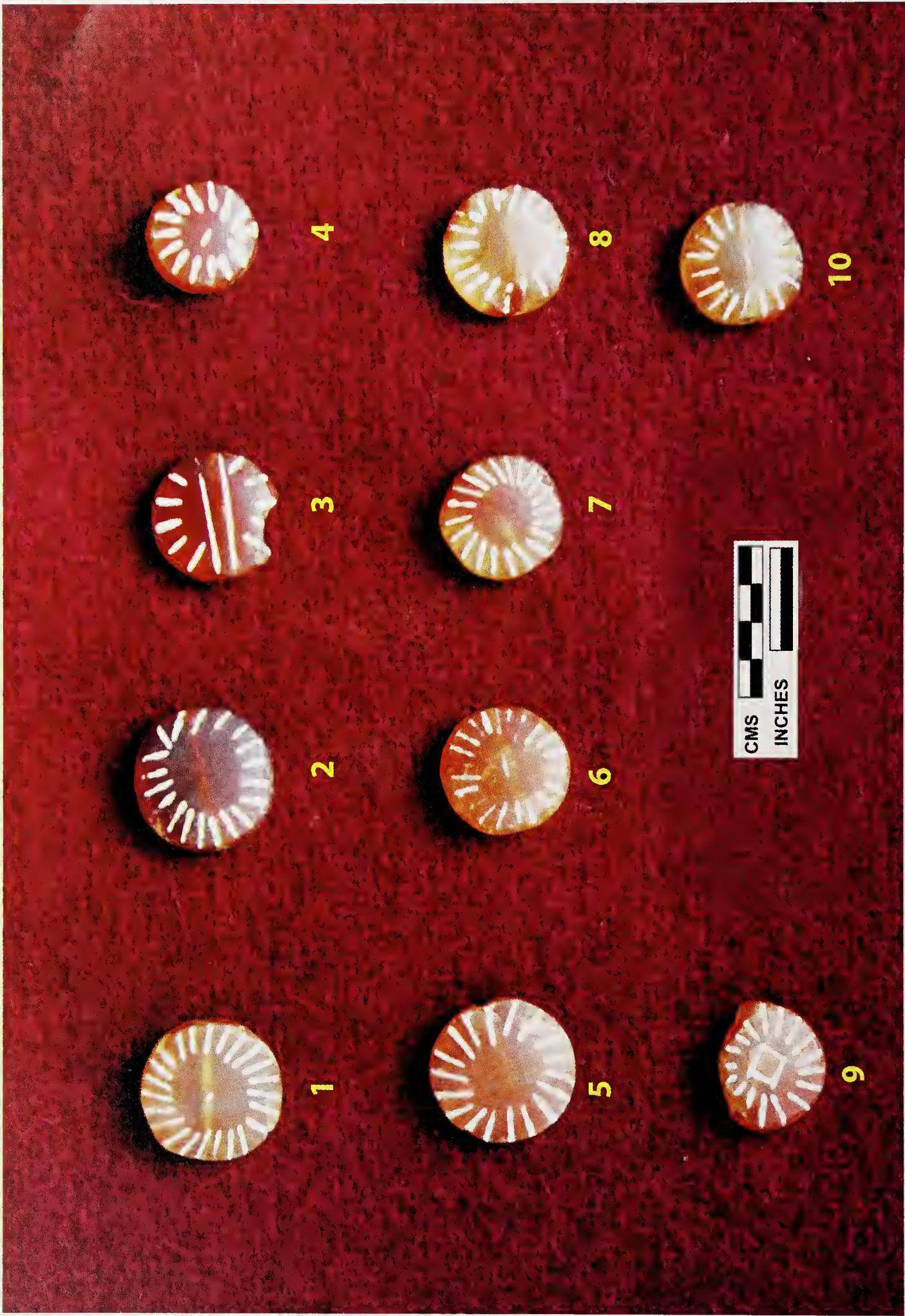
Pl. XXXVII Etched carnelian beads. See p. 74



Pl. XXXVIII Etched carnelian beads. See pp. 67, 74



Pl. XXXIX Etched carnelian beads. See pp. 67, 74



Pl. XL Etched carnelian beads. See pp. 67, 74



Pl. XLI Paste beads. See pp. 67, 74

10. Carnelian circular tablet bead; with short straight radial lines near periphery. (MEG-2: pl. XL-8, Reg. No.13)
11. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVIII-2, Reg. No.14)
12. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVIII-3, Reg. No.15)
13. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVII-8, Reg. No.16)
14. Carnelian long barrel circular bead; etched in white with three rows of chevrons in the centre with marginal bands at the ends (MEG-2: pl. XXXVII-4, Reg. No.19)
15. Carnelian long barrel circular bead; etched in white with a single line of chevron in the centre with marginal bands at the ends (MEG-2: pl. XXXVII-1, Reg. No.20)
16. Broken on the one side Carnelian long barrel circular bead; etched in white with chevron design in the centre with marginal bands at the ends (MEG-2: pl. XXXVII-2, Reg. No.21)
17. Broken on the one end Carnelian long barrel circular bead; etched in white with marginal band at the end (MEG-2: pl. XXXVII-3, Reg. No.22)
18. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVII-7, Reg. No.23)
19. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVII-5, Reg. No.24)
20. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVII-6, Reg. No.25)
21. Carnelian oblate bead; with vertical bands at the centre in-between two marginal lines (MEG-2: pl. XXXVIII-1, Reg. No.26)
22. Paste bead; long barrel circular with polished surface (MEG-2: pl. XLI-3, Reg. No.27)
23. Paste bead; long barrel circular with polished surface (MEG-2: pl. XLI-2, Reg. No.28)
24. Carnelian circular tablet bead; with short straight radial lines near periphery (MEG-3: pl. XL-2, Reg. No.29)
25. Partly broken Carnelian circular tablet bead; with short straight radial lines near periphery divided into two sections by two longitudinal lines (MEG-2: pl. XL-3, Reg. No.30)
26. Carnelian circular tablet bead; with short straight radial lines near periphery, dash at the centre (MEG-2: pl. XL-4, Reg. No.31)
27. Partly broken Carnelian circular tablet bead; with short straight radial lines near periphery, square at the centre (MEG-2: pl. XL-9, Reg. No.32)
28. Carnelian circular tablet bead; with horizontal strips in the centre in-between two vertical bands (MEG-3: pl. XXXIX-3, Reg. No.36)
29. Carnelian circular tablet bead; with short straight radial lines near periphery. (MEG-2: pl. XL-7, Reg. No.37)
30. Carnelian circular tablet bead; with short straight radial lines near periphery divided into two sections by two longitudinal lines (MEG-3: pl. XXXIX-1, Reg. No.38)
31. Carnelian circular tablet bead; with short straight radial lines near periphery, dot at the centre (MEG-3: pl. XXXIX-2, Reg. No.39)

B. IRON OBJECTS

The excavation of the burials yielded numerous iron objects, many of them in a bad state of preservation. Iron is one of the distinctive traits of megalithic period in the sites so far excavated in Peninsular India.

Iron objects encountered at Siruthavur chiefly consist of wedges, long cutting knives and sickles which are commonly appearing in megalithic monuments. The iron implements were basically meant for agricultural operations and few of them may have been meant for breaking and preparing stone slabs for megalithic tombs.

Excavations at this site had yielded quite a lot of iron objects but because of the poor state of preservation and weathering many of them have been corroded and have lost their original core and character (pls. XLII and XLIII). Twenty two such iron implements and their types have been recorded. They include two daggers, six wedges, six knives of which a long one was a cutting knife blade, four sickles, one chisel and three swords of which one was a fragment of a long sword. One dagger was complete except the bottom tip portion of the tang while the other one was broken. The unbroken dagger was 19.5 cm in length, 0.9 cm in breadth and 0.6 cm in thickness. The blades have tanged hilts. It consists of flat concave lateral sides and with somewhat convex cutting edge. It has a very thin cross-section.

Fig. 14

- Type 1. Wedge (MEG-3: pl. XLII-1, Reg. No.56)
- Type.2. Wedge with pointed top (MEG-3: pl. XLIII-2, Reg. No.46)
- Type.3. Top portion of a sword (MEG-5:Reg. No.51)
- Type.4. Portion of the dagger (MEG-5: Reg. No.48)
- Type.5. Fragment of a sickle with oblong section (MEG-1: Reg. No.52)

- Type.6. Wedge (MEG-1: Reg. No.18)
- Type.7. Handle portion of a sickle (MEG-1: pl. XLII-2, Reg. No.1)
- Type.8. Fragment of a sickle (MEG-1: pl. XLII-4, Reg. No.2)
- Type.9. Fragment of a sickle (handle portion in two pieces) (MEG-3: Reg. No.17)
- Type.10. Bottom portion of a dagger with a tanged hilt (MEG-3: Reg. No.34)
- Type.11. Top portion of a sword or dagger (MEG-3: Reg. No.43)
- Type.12. Portion of a knife (MEG-3: Reg. No.35)
- Type.13. Middle or cutting portion of a long sword with a mid-rib (MEG-3: Reg. No.3)
- Type.14. Fragments (in three pieces) of a long cutting knife blade (MEG-3: Reg. No.40)
- Type.15. Chisel (MEG-3: pl. XLII-3, Reg. No.41)
- Type.16. Tanged knife or dagger (MEG-4: pl. XLIII-3, Reg. No.49)
- Type.17. Portion of knife with lenticular section (MEG-3: Reg. No.47)
- Type.18. Wedge (MEG-3: pl. XLIII-1, Reg. No.45)

Fig.15

- Type.1. Wedge (MEG-1: Reg. No.44)
- Type.2. Wedge (MEG-1: Reg. No.42)
- Type.3. Portion of a knife (MEG-1: Reg. No.54)
- Type.4. Tanged knife (MEG-1: Reg. No.55)

C. GOLD OBJECT

One gold ring of 1.3 cm diameter and 0.5 mm thickness was retrieved from a depth of 0.54 m from MEG-5. The ring is a very thin and has no joints (pl. XLIV: Reg. No.50).

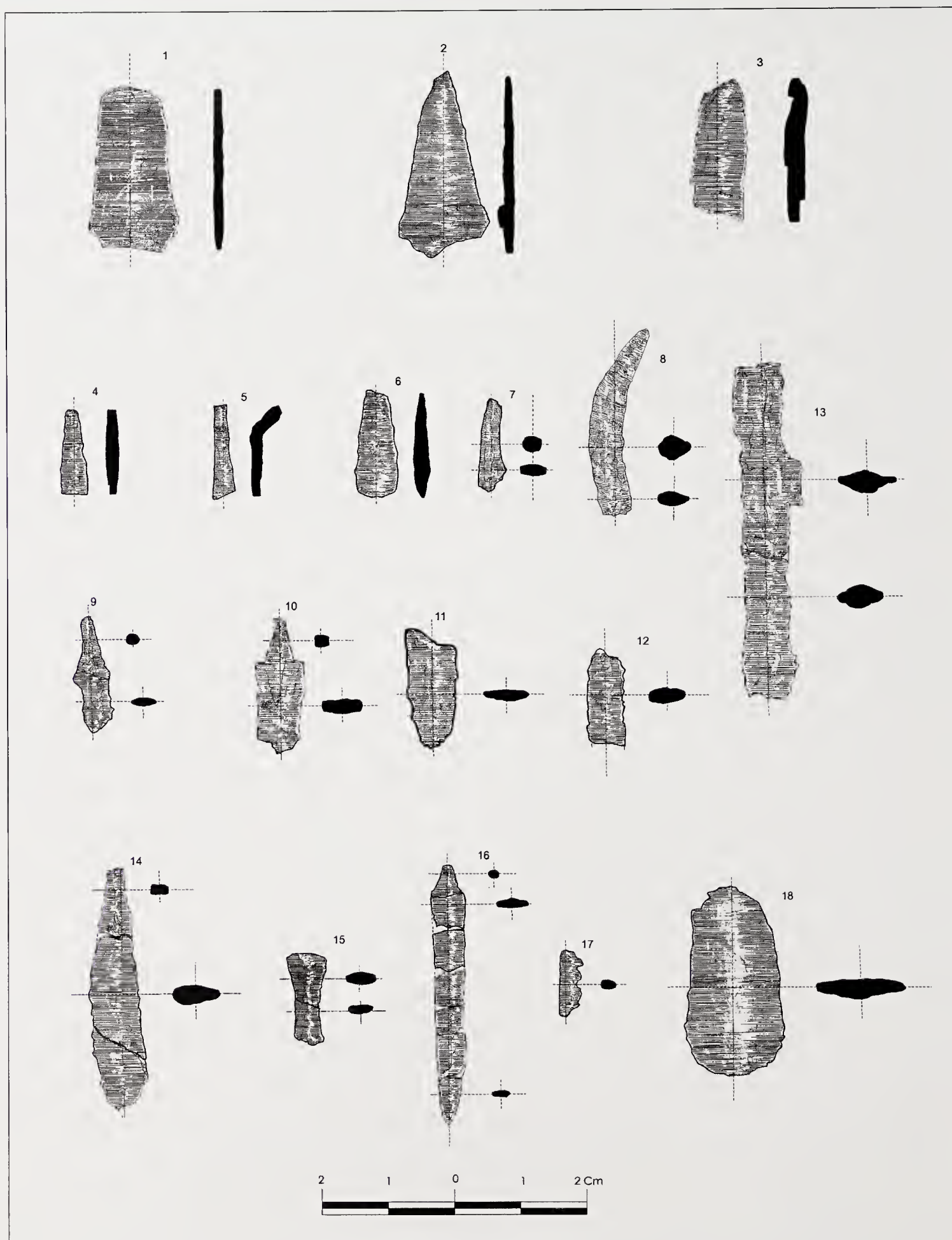


Fig. 14 Iron objects

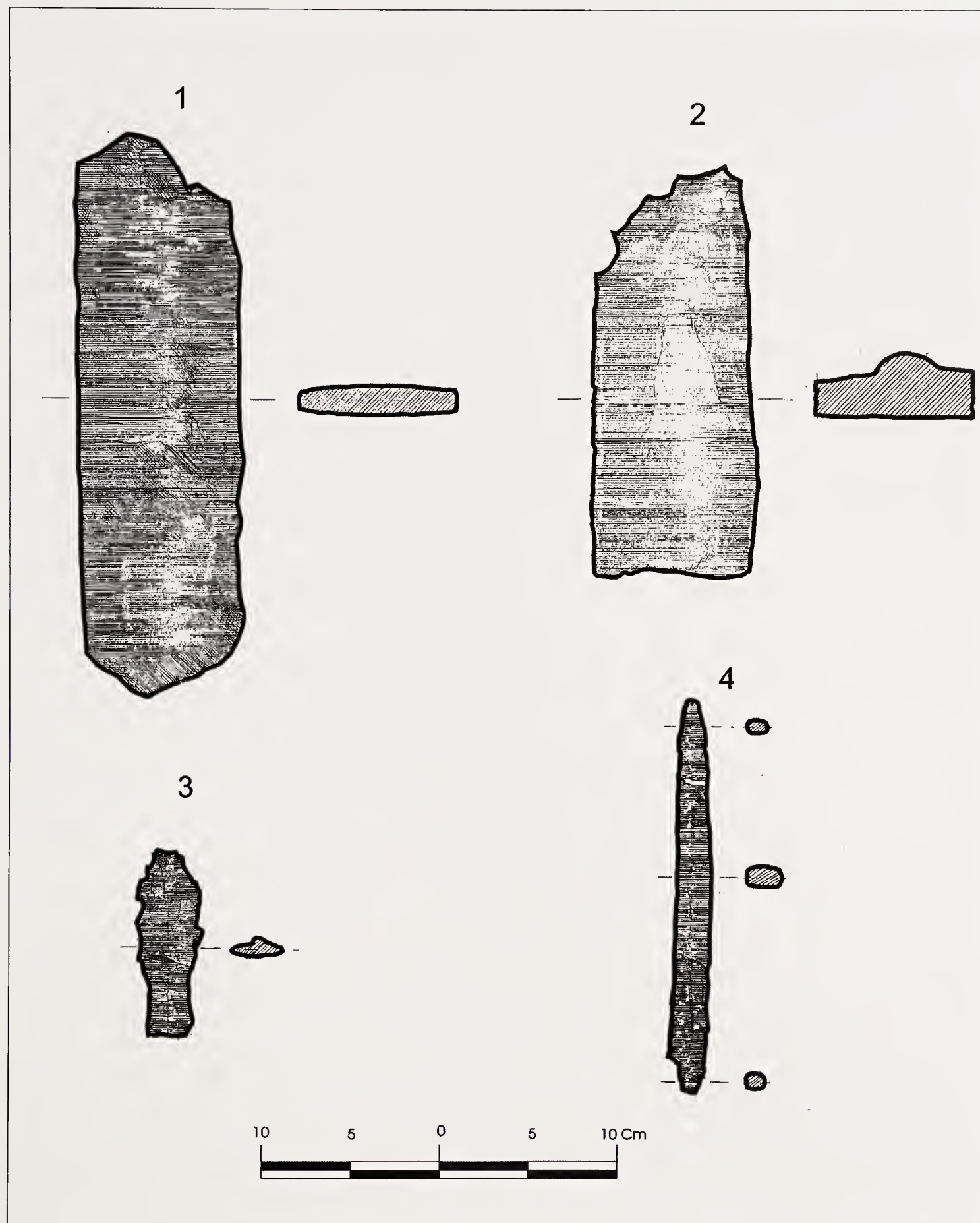


Fig. 15 Iron objects



Pl. XLII Iron implements. See p. 75



Pl. XLIII Iron implements. See p. 75



Pl. XLIV Gold ring. See p. 75

Palaeoenvironmental Study

CHAPTER

7

Palaeoenvironmental study was undertaken by the Department of Geology, Anna University, Chennai to understand the main environmental condition of the past. The study of lake sediments provide a more consistent record of impact, given their normally continuous accumulation and their catchments. Much of the material which makes up such sedimentation includes washed soils and erosions. These sediments furnish a record, in their own right, of terrestrial events of the past. Siruthavur lake is archeologically very important because of the presence of megalithic burials around. The megalithic burials are in the western side of the lake.

Three core samples were taken from three different locations of the lake. These samples were subjected to sedimentological, magnetic and geochemical analysis. The magnetic susceptibility shows prominent decrease in the magnetic parameters, indicating a major aridity in the geological past at a depth of 20 to 25 cm; and 49 to 60 cm. The data was correlated with geochemical and sedimentological analysis as well. In the sedimentological analysis of the samples, the

calcium carbonate is comparatively very high and organic matter is very less. Due to the decrease in the water table because of aridity, it has led to the death of organisms. The lake thus had witnessed two arid climates. Between 27 to 37 cm intervals the lake had undergone humid to sub-humid climate, after which it had witnessed a hot climate. At this level the organic matter too is comparatively high and the percentage of sand is higher than silt. The 80% sediments were sandy particles indicating flash flood. This is the indication of humid/ extreme wet conditions.

The geochemical data shows that the sediments have high content of magnesium and iron so the minerals have come from ferromagnesian minerals. Clay and silica correlation indicate sediments are mainly biogenic in origin. Cobalt concentration is higher indicating that the sediments have been derived from an arid condition. From the trace element data it is seen that Copper (Cu), Chromium (Cr), Zinc (Zn), Cobalt (Co), Nickel (Ni) concentration is very high in this area, which is due to the presence of anthropogenic activity.

* Source: Dept. of Geology, Anna University, Chennai

Dating

CHAPTER

8

Pottery samples from five excavated burials within Siruthavur have been dated by Optically Stimulated Luminescence (OSL) method. The selection of the samples from five different types was to understand the distinctiveness of each type from the other in terms of age.

The OSL dates reveal that the site has been in use for over a stretch of period say from 3rd century BCE and until 7th century CE. It is interesting to note that the dolmenoid cist burial is earlier than other burials.

S.No.	Sample No.	Lab No.	Age (years)
1.	MEG-4	LD650	2340 \pm 51
2.	MEG-5c	LD651	2015 \pm 108
3.	MEG-5a	LD652	1844 \pm 208
4.	MEG-6	LD653	1664 \pm 45
5.	MEG-8	LD654	1523 \pm 74
6.	MEG-3	LD655	1391 \pm 28

* Source: Dept. of Geology, Anna University, Chennai

Observations

CHAPTER

9

Excavation at Siruthavur covered basically almost all the important representative types of megalithic monuments in Kanchipuram district.

The megalithic period is the earliest cultural edifice of this village followed by a ruined apsidal Siva temple on the outskirts of the village assigned to the Chola period -10th to 13th century CE as recorded in the inscriptions on the stone walls of the temple.

Basically in the megalithic period there was a shift from hunter gatherer to a pastoral community, the use of iron implements increased during this period because of which this period is also called as Iron Age. The megalithic monuments occur on the un-arable rocky slope, rocky high ground or foot of hillocks, in association with large irrigation tanks and cultivable land in the neighborhood. Unfortunately, it has not been possible to trace any habitation site of the people who have left these megalithic relics in majority of the sites. Similarly in Siruthavur only the megalithic burials were found and no habitation site could be traced.

It is not clearly evident from the present landform of the site if the site had undergone periodic changes even within the time frame of megalithic culture as seen through the different types of megalithic burial practices at the site since the site has changed due to erosion and man-made destructions.

In the case of dolmenoid cist burial in MEG-3, a pit was dug, the sarcophagus was lowered and then the dressed stone slabs were erected on the three sides (east, south, and west) and on the northern side pottery and iron implements were placed at different levels. As at Kunnattur, the filling seems to have been made in stages, indicated by the occurrence of grave goods in separate layers, interspersed with deposits of earth.

Sarcophagus is primarily a coffin with an oblong or bathtub like shape with cylindrical legs fluted at the base either in one or more rows. These types are found in abundance in Kanchipuram district. They were used for secondary burial within a pit, within a cist or dolmenoid cist and is generally seen oriented in east-west direction. Grave goods like Black-and- Red ware pots, Red ware pots, iron

implements and semi-precious beads were placed within and outside the sarcophagus.

The Urn burials appear to be simpler than the other megalithic burial types. The absence of the stone circle, which is a common feature of megaliths, the paucity of pottery and iron objects and the small quantity of skeletal remains or material tend to suggest a less sophisticated and conventional mode of disposal of the dead, perhaps even indicating a later date for the urn burials than that of the other types of burials.

The grave goods generally include pottery of different wares like the characteristic Black-and-Red ware, Black ware, Red ware and iron implements. The majority of the pottery is well fired but in a weathered condition. The graffiti marks found on the pot sherds retrieved from the MEG-3 basically show a single type of symbol of a triangle with horizontal stroke in-between. Predominantly these marks are found on the rim part of bowls. What exactly it represents is not known, may be it is potter's mark.

The iron implements recovered from the burials included swords, knives, daggers, spears, arrow heads and axe. The other objects include terracotta and carnelian beads and a gold ring. In the urn burial some bone pieces were found.

The antiquities like beads, gold ring and iron implements retrieved from the burials show the standard of their craftsmanship and the knowledge of crafting the semi-precious stone like chalcedony (carnelian). The iron

implements may have been used for both hunting and agricultural activities.

The skeletal remains interred are excarnated ones. The bones are not burnt after death. The megalithic burials here are sepulchral in nature meant for secondary burial.

The observation made in this cluster of burials yielded clues as to the distribution pattern within the complex of the varied types of Megalithic burials. The spatial distribution pattern show a shift from a more complicated / complex style of architecture to a more simplified megalithic pattern as one moves from the elevated to a more flat land closer to the water body. The more densely packed dolmenoid cist/ cist burials are prominent at the foot hill region and the stone circle and urn burials are prominent more or less on the flat land closer to the lake area. The dating of the site shows that the site was in occupation for over 700 years and the patterns of burials overlap, however, they show specific concentration of burial types in different areas at the same site. While the burials are interwoven and overlap, yet clear clusters of burial types are discerned. Topographically, it appears that the earliest megalith builders occupied the most elevated part or were closer to the foothills.

Hypothetically it is observed that the megalithic people lived in large communities as seen through the distribution of the burials and it can be surmised that they practiced varied

Observations

forms of burial construction depending on the space and availability of the raw materials. It would be premature to conclude that the different architectural form of burials has any bearing on social hierarchy in the community.

On the whole the excavation has provided an opportunity in understanding the variety or different types of megalithic burials in a single site over a time span from 3rd century BCE to 7th century CE.

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Appendix

List of excavated megalithic sites associated with sarcophagus in Tamil Nadu

S. No.	Site/ Taluk/ District	No. of Sarcophagus	No. of legs	Measurement	Description	Reference
1.	Paiyampalli Thiruppathur Taluk Vellore district	1	24 legs	—	Cairn circle with gravel pit-sarcophagus with disarticulated bones Grave goods- 18 arrow heads and some earthen wares around the sarcophagus.	<i>IAR*</i> -1964-65, 1967-68, pp.26-28 Excavated by S.R.Rao
2.	Kunnathur Sriperumbudur Taluk Kanchipuram district	5	4 legs	1.95"x1.5"x7.5"	MG-VII: Pit with a sarcophagus. Holes at the bottom. It contained four small cups of Black-and-Red ware. No grave goods. Oriented northwest to southeast. Lid had holes.	<i>IAR*</i> -1955,p-23 1956-57: pp.31-34 1957-58; pp37-38 Excavated by V.D. Krishnaswami and B. Saran
			12 legs	6'.3"x1'.9"	MG-IX: 12 legs in two rows. Regular grave goods.	
			21 legs	6'.6"x2'.8"	MG: V: - 1) Cairn circle with pit. East-west oriented. Few vessels of Black-and-Red ware and iron implements. 2) Outside the pit: towards the south but within the limits of the circle. Three smaller sarcophagi. Oriented east-west	
			8 legs	4'.6"x1'.5"	Sarcophagus-A.	
			6 legs	---	Sarcophagus-B&C The lids of all the three sarcophagi had holes. Grave goods include bowls and conical vessels in Black-and-Red ware and an iron spear head.	

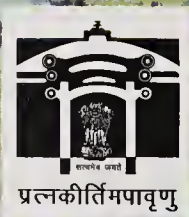
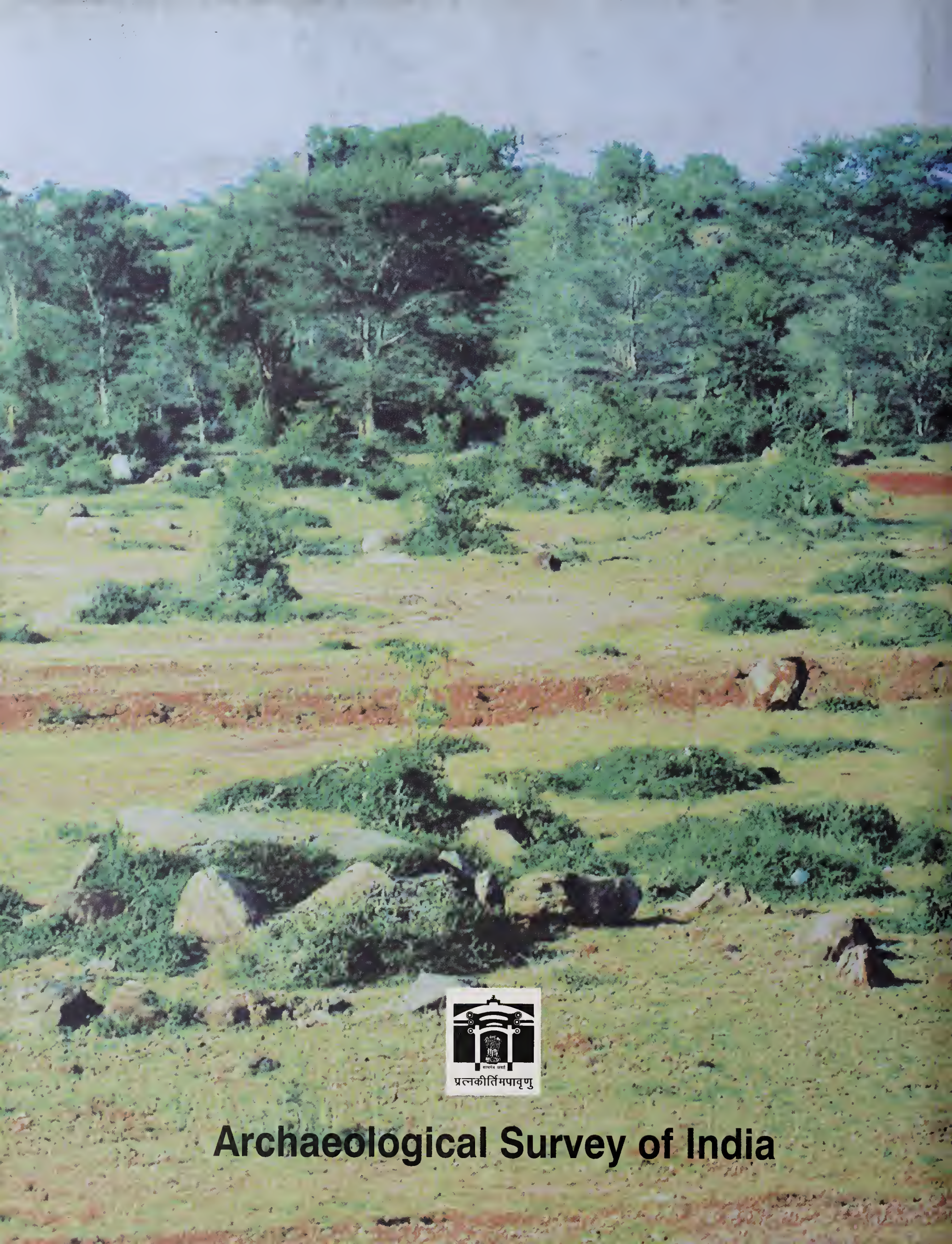
3.	Sanur Chinglepet Taluk Kanchipuram district	Megalith-1 Five sarcophagi named as A,B,C,D and E all are oriented north-south except E, which is oriented east-west. Dolmenoid cist with capstone enclosed by a stone circle with cairn packing.	A-18 legs	5'x1.9"x1'	Oriented east-west. It had an elliptical grooved rim and bulging body. Short, conical and squat legs. Horse shoe-shaped decoration on the exterior. Hooks at the four corner. Grave goods include three long spears, and bowls, etc.	<i>Ancient India</i> No. 15 pp.4-42. Excavated by K.V. Soundarajan and N.R.Banerjee.
			B	4'x1'.9"x1'	Roughly oblong. Three holes at the bottom and applied chain at the corners. Iron implements and pottery.	
			C-12 legs	4'x1'.6"x1'	Bulging body. Thick rim. Ornamental chain at the corners. Two holes at the bottom. Few fragments of bone, pot and iron dagger.	
			D-6 legs	2'x1.1"x9"	Small, oblong; flat groove less rim- hollow elliptical lid. An applied band of twisted cord ornamentation. The legs are hollow and cylindrical, slightly spread out at the bottom.	
			E-4 legs	1'.10"x1x4"	Too small. Shallow. Oblong shape- weakly grooved.	
		Megalith-2 with three sarcophagi. Oriented east-west Dolmenoid cist with flush capstone.	A-15 legs	5'x2'.6"x1'	Large size;Grooved rim. Chain decoration. Short squat legs in three rows of five each. Three holes at the bottom. Disarticulated bones, ribs, etc.	
			B-18 legs	---	Elongated ovoid with a bulging body and well grooved rim. Three rows of six each. Horse shoe applied ornamentation at its western and eastern ends. Grave goods include long iron spears, knife, blade and bones.	
			C-15 legs	3'.6"x1'.9"x9"	Oblong. No lid. Two holes at the bottom and holes on the inner sides of the legs. Horse shoe ornamentation at the four corners of its outer walls. Bones and iron implements.	

Appendix

		Megalith-3 Sarcophagus in a dolmenoid cist with stone circle.	8 legs	4'x2'x1'	East-west orientation. Covered by a lid. Two rows of four legs each. Circular holes at the bottom. Two carnelian beads and iron fragments. Pots.	
		Megalith-4 Sarcophagus	6 legs	---	Sarcophagus within the enclosure of a rough and incipient stone chamber. Fragments of broken lid. Iron chisels and pottery.	
4.	Perumbair Near Acharapakkam in Madurantakam Taluk, Kanchipuram district	8	----	varies from 0.60m to 2.20m	Stone circles with sarcophagi. The sarcophagi are oblong in shape, two to three rows of legs of short roughly shaped cylindrical, hollow and sometimes have a hole in the inner side.	<i>Catalogue of the Prehistoric Antiquities from Adichanallur and Perumbair</i> by Alexander Rea, 1915, Madras Govt museum. pp.41-49.

*IAR -Indian Archaeology- A Review





Archaeological Survey of India